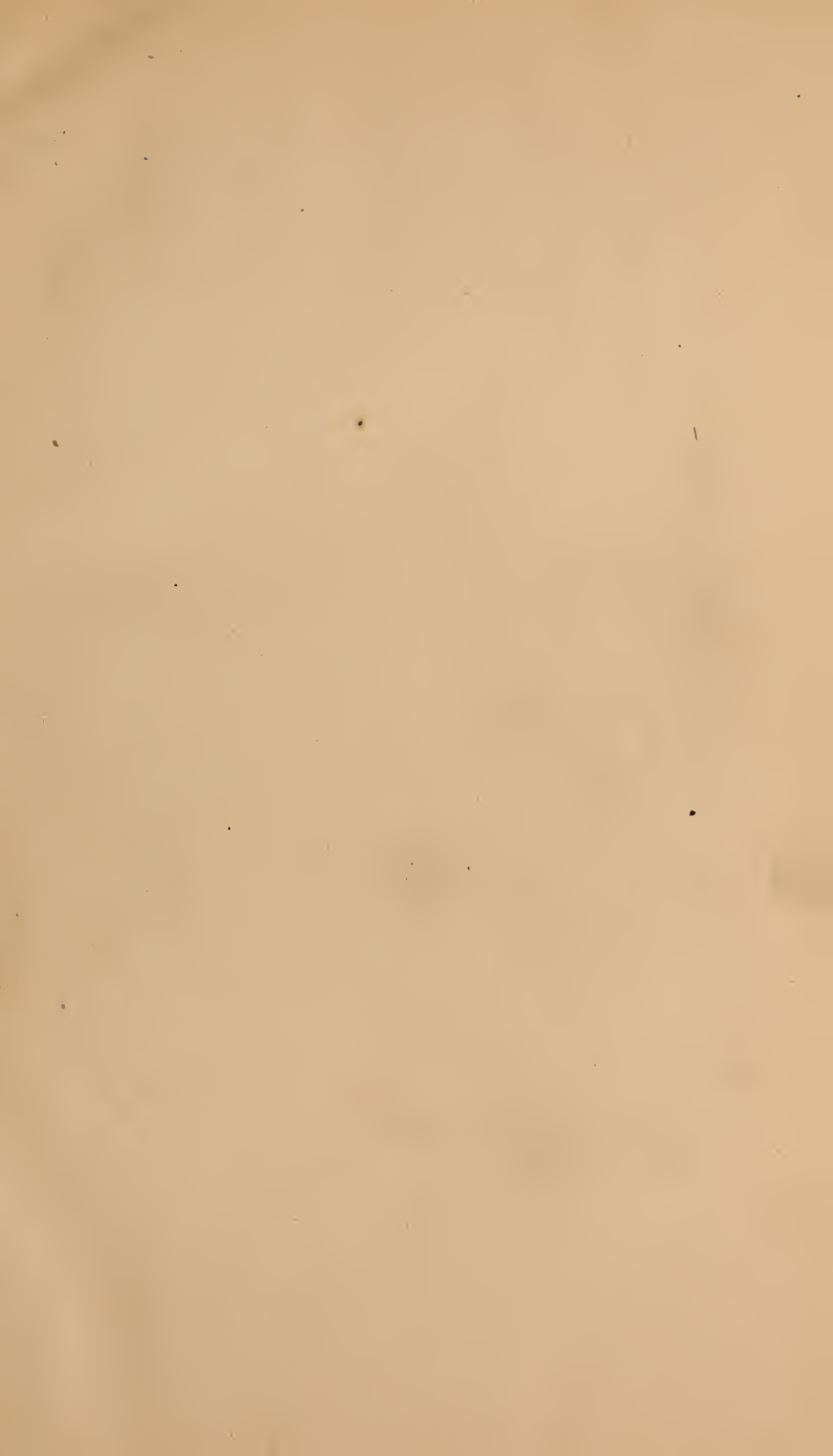


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Edited by,

THAD. M. STEVENS, M. D.

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Medical Department

OF THE

STATE UNIVERSITY,

INDIANAPOLIS, INDIANA.

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ENDS FRIDAY, FEBRUARY 26, 1875.

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THAD. M. STEVENS, M. D.,

SECRETARY.

INDIANA JOURNAL OF MEDICINE

VOL. V.

MAY, 1874.

No. 1.

Original Communications.

THE INDIANA MEDICAL COLLEGE.

ADDRESS BY CYRUS NUTT, D. D., PRESIDENT OF THE STATE
UNIVERSITY.

Before the Graduating Class of Session 1873-4.

What constitutes a modern university? The term, university, has a different meaning in different countries. In England it applies to a number of colleges with the same course of study, located together in the same city or town. The far-famed university of Oxford embraces twenty-seven, each of which, with its own buildings, library, fixtures, and faculty, corresponds to the best colleges in the United States. The university of Cambridge is an aggregation of eighteen similar schools. In the United States, and especially in the west, the name university has been greatly abused. Mere colleges, and some that have little more than preparatory departments for colleges, claim for themselves the dignified appellations of universities. In Germany a university means an institution which embraces all the professional schools. It is of a grade above the colleges. The colleges are called gymnasia, through which stu-

dents must pass before they enter the university. Now a university proper, is an institution in which is taught every department of knowledge, scientific, philosophical, and professional, by competent instructors, supplied with buildings, libraries, museums, laboratories, and apparatus for experiments and illustrations in every field of research traversed by man. It should embrace, at least, five faculties, viz: The faculty of arts, philosophy and science; the faculty of law; the faculty of medicine; the faculty of military science and civil engineering; and one of agriculture, the mechanical arts and mining. There are subdivisions in each of these departments embracing only specialties. To aid our conceptions of what a university should be, let me introduce you to that of Berlin, which now confessedly ranks first among all the universities of the world. The current expenses of this university amount to \$300,000 per annum. \$200,000 are annually appropriated from the national treasury; and \$100,000 are derived from tuition fees and other perquisites. The whole number of professors is 178, and the number of students is 3,000. The total number of branches taught in the best colleges in the United States are only about seventy; less than one-fifth of the number embraced in the University of Berlin. In this university each student selects his profession and takes his course of lectures under the faculty of that department. He has also the privilege of attending the lectures of such professors as he may choose, in the other faculties. Students who have taken the prescribed course, and passed satisfactory examination in any one of the departments, receive a diploma and the degree of doctor of law, medicine, theology, or philosophy, according to their chosen profession. In buildings, fixtures, libraries, museums, apparatus, botanical and zoological gardens, and all other faculties of instruction, experiments and illustrations, this institution stands unrivaled. The plan is to teach the student all that is known in

that science and art he may have chosen, and to train him in the best methods of pursuing still further investigations in his chosen field. So that when he has fully completed his course he can say with truth, "I thoroughly understand all that is known upon the particular subject, and there is no one in this world that can teach me anything more." With mind well trained in scientific methods he is prepared to make still further progress in his field of research. Now, it is in this way only, that the grand discoveries of modern times and the intellectual development of the age have been achieved; and thus only can the world be achieved in the knowledge and civilization, and our common humanity elevated.

THE REQUISITES FOR A COMPLETE UNIVERSITY.

Two things are absolutely essential for the establishment of a complete university. These are money and men. The greatest want of the oldest and best institutions of learning in our country, and even those of Europe, is money. There is no limit to improvements, if sufficient means are supplied. Money is needed for two purposes: to furnish material aids for instruction, in the way of fixtures and appliances. These should be furnished liberally; and they will require large expenditures. They are the tools or instruments which the professors are to use both in imparting instruction to their classes, and in original investigations. These constitute the necessary machinery of education and progress, without which little can be done. The second great want is men. Men are needed for officers and professors. Workmen of native ability, and of the greatest culture and skill should be employed, in order that complete success may be assured. They should be live men, fully abreast with all the improvements of the age, and among the very first in their several departments. They should fully comprehend all that has been done in their special fields, and be prepared to lead them to new discoveries. The professors should be possessed of scholarships of the

highest order, capable of acquiring vast stores of knowledge, and at the same time apt to teach. . They should be gifted with first-class ability in communicating their thoughts. It is not always the case, that those most distinguished in the fields of discovery, and those to whom the world is most indebted for new and useful inventions, are the best teachers. A different class of mental faculties are needed in communicating thoughts to others, from those employed in acquiring those thoughts. The art of teaching consists in disbursing mental treasures to others, in the manner most effective and most agreeable. The art of acquiring knowledge is the process of accumulating those mental treasures. The former is the dispensing power of the mind, the latter the receptive power. The one is the reservoir and its sources of supply; the other, the means of distributing its contents to the thirsty inhabitants. The one is the exhalation of vapors from the earth, the other the formation of those vapors into clouds and descending rain upon the parched ground. Psyteologically, the former is gathering the thought material, the latter is the working of that material into such forms as shall be most acceptable and most valuable to others. Both processes require a higher order of mental power; and both are indispensable. But if there is any difference, it is to be found in the fact, that the latter requires more skill, training, and maturity of thought. Professors properly qualified for their positions, must possess both these powers in the highest degree. They should also be earnest men; full of enthusiasm and lovers of the truth, and inspired with an ardent devotion to their work. They should have that magnetic power which will attract students, inspire them with earnest zeal for knowledge and kindle in them the liveliest interest in the pursuit of scientific truth. They should be able to arouse in them all the ability and energy which they possess, and excite them to intense activity. Such teachers awaken in their students a con-

sciousness of power greater than they ever before dreamed that they possessed. Thus they not only lead the way, but clear the track of obstructions for those under their care. To the weak and vacillating they supply force and steadiness of purpose, bringing out their entire intellectual strength. Under such instructors, the progress and development of students will be rapid, thorough and complete. The professors should be men of unexceptionable morals, and imbued with the spirit of christianity. The bible and christianity lie at the foundation of modern civilization, thought and progress. Some of the most distinguished scientists of the day, in their zeal for the promotion of the physical sciences, overlook their own indebtedness, and that of the world, to the teachings of the bible and the influence of christianity. These have humanized, elevated and rendered happy the human race. Without God's word humanity tends to barbarism and brutality. It is of the highest importance that the youth of the land, and especially those who attend institutions of higher learning, should receive proper moral and religious culture. Instruction in the sciences cannot be complete, unless it traces scientific truths to their primeval source, the fountain of all being and intelligence—the Infinite Creator. Science, as it investigates the great laws which govern matter, should follow them up through nature to the Great Lawgiver, who has imparted beauty, harmony and glory to the universe. Everywhere throughout creation God has embodied his own plans, designs and thoughts. The universe is but the development of what first existed in the mind of God. His thoughts scintillate in the plant and in the flower, in all orders of vegetable and animated nature, from the lowest to the highest; they glow in the stars, beam in the sun, fan in the breeze, blossom in the trees, and pervade the wide expanse of the universe. All science, all thought must be fragmentary and incomplete until it culminates in God. Men who are prepared

thus to teach and lead their students should fill the chairs in all our first class colleges and universities. Men possessing all these qualifications are rare, though they are to be found, but they cannot be obtained for a mere pittance, nor for a less salary than would be a fair compensation for their services. Here, then, is another essential want of a large supply of means.

WHO SHOULD FOUND AND CONTROL COLLEGES AND UNIVERSITIES?

This is one of the living questions of the day, and in its decision is involved the fate of the entire public school system of America. All the friends of freedom must regard it as a vital question, one of primary importance; hence it is being discussed with zeal by the best minds in the country. One class claims that religious denominations, by means of close corporations, should establish and control exclusively all institutions of higher education. Several weighty arguments are urged in favor of church institutions. First, that they provide much better for the moral and religious instruction of the students than state institutions. The prejudice in favor of church management of higher, and indeed, of all education comes from the middle ages. During that period, when Europe was enshrouded in darkness, from the fifth to the fifteenth century, what little there was of learning and intelligence belonged to the church, the ministers of which alone possessed the knowledge of letters. Schools and all instructions were monopolized by the priests. They were the only teachers. They led the way in the ninth century in the establishment in England of the schools of Canterbury and Oxford. In the same century, the famous alumni taught at the court of Charlemagne, in Paris. Three centuries later came the great schools of Rosielinus and Abelard in France. Both of these renowned teachers were priests, and the latter ended his days in a monastery. The first college of modern times was founded by priests in Balogna, Italy, in the thirteenth century. It was es-

established mainly for instruction in the civil law, which had been brought to light by the discovery of a manuscript copy of the code of Justinian. Here for the first time were degrees conferred and diplomas awarded. From the same source, the church, came the universities of Europe in succeeding centuries. The church had charge of the educational affairs of the nations. But in the nations of Europe, from the earliest times to the present, the church has been a part of the state and a co-ordinate branch of the government. It was therefore more convenient and less expensive for the state to manage its institutions of learning, through the agency of the church, than by a separate establishment, or organization. This same system, more or less modified, still permeates all Europe. The first settlers of North America transplanted the ideas and institutions of the old world with themselves on this continent. In the New England colonies, and most of the other settlements within the territory of the United States, church and state were still united. The religion of the puritans and that of the chevaliers was a state religion. The pilgrim fathers but carried out the ideas which they had imbibed from their sires in the old world, when they determined that the church, aided by the state, should take charge of the interests of education. Hence, came the public school system of the New England colonies under the control of the church, but supported by taxation. Hence, also, Harvard and Yale colleges were founded at an early date under state sanction and support, by the congregationalists, who at that time were the only denomination in Massachusetts and Connecticut. These institutions have continued under the same control, with some modifications of a recent date until the present. After our national independence was achieved and the church was separated from the state, it was natural that the religious organizations should seek to retain all their former rights and prerogatives

in the department of education. As the church and ministry had enjoyed a monopoly in the control of the educational interests they wished to control them still. The people, accustomed to see these powers thus vested, gave the subject no further thought. Hence the growth of colleges and universities has been slow. The civil government has held aloof, lest it should infringe the prerogations of the church, or furnish its aid hitherto sparing, lest the cry should be raised of an effort to unite church and state, a union most odious to the American people. Thus it has been conceded in the governments of Europe for 1,500 years, that to provide for and control the education of the children and youth of a state belonged to the government. But because church and state were united in Europe, education has been handed over to that department of the civil government, which was ecclesiastical. Great men and educators transplanted from the soil of the old world, cannot divest themselves all at once of the bias and habits of thought inwrought in their mental structure by their European education. It requires years for such to become assimilated to American ideas and fully comprehend American institutions. It is with the greatest difficulty and most tardy movement that old ideas give place to new ones. As the church has for centuries controlled education, many think it high treason to take from her any part of this prerogative. But it is a legitimate subject of inquiry, whether, as the church in this country is severed from the state, the latter ought not to resume her prerogations, and take the control of secular education, which underlies all order and prosperity.

WHO SHALL ESTABLISH AND SUPPORT COLLEGES AND
UNIVERSITIES?

1st. The states should not leave higher and professional education to the religious organizations, because in all the states, each religious sect will strive to have a university of its own. Hence there will spring up as

many so-called colleges and universities, as there are different denominations. This is practically illustrated in many of the western states. Some states have sixteen, and some as high as thirty-two; but the most of these are nothing more than Academies or fourth rate colleges, without endowments, libraries, apparatus, museums, and other needful appliances, with a few overworked professors on starving salaries. These colleges will also be arrayed against each other in fierce hostility, and thus obstruct each others advancement. Decades of years must pass before these institutions could furnish thorough collegiate and university training; and the youth of the country would be compelled to go to Europe, or to other states which had adopted a wiser policy, for higher culture. 2nd. To make adequate provision for university education is too great a burden for the religious denominations, and one which long experience has proven to be more than they can bear. We have nothing as yet, in America, that can be favorably compared with European universities. The nearest approximations are Harvard and Yale. And yet how long has it taken these to gain even their present efficiency? All institutions erected by denominational efforts are of slow growth. Harvard was founded in 1638. State colleges and universities to fill the ranks of the gospel ministry, and send them forth on their mission of love. Let the churches hail them as servants of God, and welcome them to their ranks as co-laborers in the great harvest.

DUTY OF THE STATE IN REGARD TO HIGHER EDUCATION.

1st. The State should provide for the higher education of her youth, because she has the ability to do it. What the state can do, when so disposed, is demonstrated in the history and present status of several state institutions of learning in this country and in Europe. The university of Michigan may be referred to as an example. Michigan was admitted into the Union in 1837, and her university is a little more than thirty years old.

Yet in the number and extent of the departments of instruction, in fixtures and other appliances, she is fully abreast of Yale and Harvard, perhaps surpasses them in the number of her students.

2nd. Higher education should be supported by the state, because its advantages are enjoyed by all the people. That the whole nation is developed, and made powerful and happy by the dissemination of knowledge, is made clear by the history of modern progress. One kernel of grain denotes the luxuriant harvests of the world. An acorn means a forest. A drop of water points to the ocean. One particle of dust tells of a world, yea, the whole material universe! So scientific discovery leads to the advancement of civilization, the progress of the race, the march of the world. The beginnings are small and seemingly insignificant. The discoverers themselves did not foresee the results of their labor. No human mind could foresee them, as none can predict the end from the beginning. The discoverers themselves have passed away, but the fruits of their labors remain. "Being dead, they yet speak."

The advantages derived from discovery are not all developed at once. Invention follows discovery, sometimes at a slow pace. Knowledge is power only when it is applied. The properties of matter and the laws of nature must be known before they can be utilized. To the masses the philosopher in his laboratory, or in the field appears a gentleman of leisure, triflingly, if not insensibly employed. They look on with wonder and contempt as he is engaged in his experiments, manipulating his retorts and scientific and chemical materials. Zioa, balancing his needle, and Galbani, with his knife and limbs of frogs would be thought to be engaged in sport more silly than mere boyish play. But how wonderful the results? Such employments were ridiculed and stigmatized as folly by ancient Greeks. A student was called "scholasticas," a person of leisure or an indolent,

foolish fellow. From this disrespectful course comes our word, scholars. Such was the estimate placed by the multitude upon the pursuits of learning more than two thousand years ago. Many even at the present day regard all such as fools, or crazy. Agassiz, in the interior of the state of New York, engaged a boy to hold his horse, while he went into the field in pursuit of some rare birds which he wanted for his museum. When a traveler passing asked the boy what he was doing with that horse in the corner of the fence, the boy replied that he was holding it for that crazy Dutchman who was hunting birds over there in the field.

The benefit of education and of the scientific research to which opens the way, cannot be appropriated by individuals, sections or classes; they belong to the human race. The aids which scholarship affords in the discovery and development of the natural resources of the country are a common benefit to the whole people. Scientific explorations of our own state have brought to light her immense mineral resources, her rich coal fields, and beds of iron ore. The discovery of the block coal of Clay, Greene and other counties of the state has led to the establishment of a dozen furnaces for the smelting of iron, the most useful of metals, and the erection of rolling-mills and nail factories, which give employment to thousands of workmen, greatly increasing the wealth of the State.

3d. Without higher education, common school education is a failure. A mistake is often made in regard to mutual dependence of general education and that of the university. Some claim that if there are no common schools there would be no university. If this be true, if there were no universities nor colleges there could be no efficient system of common schools. Among the most successful workers in the cause of free schools, a large number have been students of colleges and universities. They have always ranked among the foremost

in framing and advocating the necessary legislation, in fighting the battle of education in every city, town and school district, and in thus molding public sentiment on this great subject. Establish as many normal schools as we please, the best students even of these will be those who have received a complete or partial training in colleges. From the same source come a large proportion of the best teachers and organizers of schools. Two hundred years of experience in America, and five centuries in Europe prove the absolute dependence of common education upon the college and university.

There is no reason why Indiana should be tributary to other states, and to foreign lands, for higher and professional culture. The people of Indiana will not be satisfied with half measures. They will not be content to lay the foundations and put up the first story, and then say to the world, we can go no further, and call for neighboring states and their institutions, to complete the work and put on the finish. Will any citizen of Indiana be satisfied with a school system limited to the lower branches of education, and which will make our common-wealth a mere preparatory school for her younger sister the state of Michigan, or Harvard and Yale? It is due to the youth of the state, who desire to pursue the higher departments of literature and science, philosophy, law, medicine or any of the arts to which science is applied, that they should not be compelled to go abroad for the culture necessary to make them proficient in their several callings. Indiana has population, wealth, and abundant resources, and should provide for the education of her sons and daughters at home. Patriotism, a laudable pride, and a proper self-respect, demand that no such limitation be inflicted upon our noble common-wealth. Her war record is glorious, her common school fund the largest of any of the states, her mineral, agricultural, and manufacturing resources unlimited, her population rapidly increasing, and her system of benev-

olent institutions clustering around her capital, such as would do honor to any state; why, then, should she not be equally distinguished for her institutions of higher learning? She should not suffer the pyramid of her educational glory to be truncated and demolished. The friends of higher education will not cease their efforts until our state has a university which shall furnish all the advantages of the highest literary, scientific, and professional culture which can be found at New Haven and Cambridge, and shall rank among the very best in the world.

[The latter half of the doctor's address, which was very interesting and able, was devoted to the importance of higher culture. He spoke of the great progress which has been made in the world during the last two or three centuries, and said that this grand march had been stimulated by higher education. The want of space prevents the publication of this eloquent and instructive portion of the address.]—ED.

ADDRESS OF GOVERNOR HENDRICKS.

Before the Graduating Class of the Indiana Medical College, February, 27, 1874.

The governor said: By the ordinance of 1787, provision was made for the encouragement of schools and the means of education in the territory northwest of the Ohio river. The spirit of that ordinance animated the legislation of congress under which the Indiana territory was organized, and so a wise and liberal policy in favor of education was maintained throughout our territorial period. The result of such policy found expression in the constitution of 1816, under which Indiana was admitted as a State into the Union, in the duty imposed upon the legislature, as soon as circumstances would permit, to provide by law for a general system of education, ascending in regular gradation from township

schools to a State university. The hopes of our fathers have been realized in the development of their policy into a system of free schools unsurpassed in excellence, and in which every child of the State may receive a good common education, and in the establishment of a State university wherein all the branches of useful learning are taught.

This medical school is now a college of the State university, sharing in its responsibilities and identified with its fortunes. And, gentlemen of the faculty, in respect to the relation between this college and the State university, you are officers of the State, in charge of her honor and responsible to the people. The diplomas you deliver will be regarded as certificates by State authority of merit and qualification. I refer to this to impress upon you the responsibility of your position. Professional pride and your appreciation of your own attainments would induce you to establish a high standard for graduation, but I would add to these influences the sense of public duty. The subjects of your investigation are of surpassing interest, for they relate to man himself, but your science is in a great degree a mystery to the people. We must receive you and adopt your prescriptions almost entirely upon faith. Because of your kindness and skill you are received into the very heart of every family; you are esteemed and honored, and your presence brings gladness and restores hope. You command entire confidence. Your opinions can not be contested. Your mistakes can not be corrected. In such a condition of society, none but good men and qualified ought to be physicians. Shall this be the unswerving rule in passing your graduates? With emphasis it may be demanded that the State shall never be made a party to any imposition upon the people. How is your profession to be guarded and the people protected from pretentious quackery? This question has been long and much considered by statesmen and legislators,

but, I believe, without satisfactory results. It may not be deemed expedient to legislate upon this subject, but a thorough course in this State institution, and the exclusion of all unworthy persons from its honors will greatly contribute to the formation of a public judgment which will establish merit and drive empiricism from public view.

You have occasion to be gratified at the present success of the Medical College. A regular attendance of one hundred and seven students and a graduating class of nearly fifty, encourage the confident hope that this may become one of the first medical schools of the country. Its location is in every way favorable. This city is so advantageously situated, is so prosperous, is animated by such extraordinary energy and is increasing in wealth and population so rapidly that it attracts great and general attention. Her institutions of learning will advance with her general development. I trust the legislature will appreciate this college as a part of the State university, and extend over it all proper care and encouragement.

To the graduating class I may say that you each have our sincere wishes for an honorable and successful professional career. Avoid the mistake, too common, of supposing that your studies have closed with your graduation. That mistake is fatal to eminent success. You must be students so long as you seek employment. It will be due to your patients as well as to yourselves. In practice, let truth, fidelity, and honor be your guiding sentiments, and allow no possible influence to induce you to use your skill in ways forbidden by the laws of your country. Let not the money of the rich tempt you, nor the wailing agony of the unfortunate seduce you from the pathway of rectitude and of law.

ADDRESS OF DR. WM. B. FLETCHER.

Before the Class of the Indiana Medical College, at the Opening Session for 1873-4.

GETNLEMEN, STUDENTS AND FRIENDS OF THE INDIANA MEDICAL COLLEGE:—In the absence of the President of this institution it becomes my duty to extend the accustomed welcome, and to offer a few words of encouragement and direction, as to your course during the present term; and, if the greeting be not as warm and the advice not so good, as if it came from one of greater experience and longer service in medical ranks, attribute the failure to no lack of kindly feeling or professional zeal. When I look about me I am cheered by greeting some familiar faces, which recalls the fact that you were with us before, and were willing again to be led by the instruction of this institution. Some of you have been testing for yourselves some of the principles which you have carried away, and are ready to report upon the facts as here presented. Many are new faces to our college hall, but with those more familiar we are soon to take up a common study that has for its object, 1, the relief of human suffering, 2, the maintaining of our characters as professional men, and gaining for ourselves an honest reward for applied labor and skill. More fitting is it in after life, when the seed time and harvest have passed, to sit dreamily and gaze on the strictly poetical and charitable view of a doctor's life, than now in our untried youth to build up purple tinted castles of pleasure where fame, wealth, and love crown us for our imaginary well doing. Then, if in plain unvarnished words I present my views of what constitutes medical study, and how best a medical student may pass his time, I hope you will attribute it to a desire to start with a true understanding of our position. As a science grows more perfect, more thorough is the classification of all the objects within

its scope. Its branches are thoroughly defined, its classes well bounded, its orders are ascertained with clearness, its genera are precisely considered. Species and varieties are all tabulated. When a country is new, the pioneer settler combines within himself the hunter, the farmer, carpenter and well digger, even constructs the rude mill to grind his grain. His wife cards the wool, and spins, weaves and colors the fabrics with which to clothe the household. But as time rolls on, and the backwoods give way to a crowded civilization, we see that labor classifies itself, and the hunter pursues his game, while the farmer plows and tends his grain, the miller grinds the corn, the factor cleans and cards the wool, the dyer dyes the yarn, the spinning and weaving take different hands. So in medicine,

FIFTY YEARS AGO,

In the west, the young man who had chosen the medical profession commenced his study in the office of some overworked practitioner. At night he pursued with diligence the works on anatomy, physic and materia medica. Books were new, but between their buckskin covers was a plethora of sound knowledge that could not be obtained without work and thought. But this was but one of the rounds in the ladder of medical knowledge. Long rides with the preceptor through boggy crossways, woods and fields supplied a knowledge which books could never give; the leaves of the trees, the twigs of the shrub, the roots of the herb were examined and described by the long experienced preceptor. How to make a decoction of this, a tincture of that, an infusion of the other, or a pill, powder or poultice of another whiled away the tedious journey, and gave practical knowledge now known to few but botanists or druggists and chemists. But more was done: The patient at some distant farm or clearing was visited, the student was eyes and ears, listening with respectful attention to the questions of the doctor and the replies of

patient or friends, from well worn saddle bags the aromatic herb was drawn, and on the spot the office of apothecary was performed, or perhaps the fields were sought for some lacking ingredient, the medicine prepared and given. Perhaps, too, the good doctor reveals to the student, as well as the wondering friends, the manner of making palatable, nutritious drinks, aromatic broths, or unravels the mystery of compounding

MILK PUNCH AND EGG NOG.

The homeward ride brings a volume of comparative cases, and comments innumerable; and the round is continued to the day's sweet close. Think you not that backwoods student is a good scholar? Let me say that this day has brought that student and preceptor through just what it would have taken him seven years to see in Paris, and five years to learn in Vienna, with the assistance of twenty-seven richly paid professors. Which, think you would be best able to cope with the diseases of that western wild—the backwoods student in homespun, with his saddle bags, or the polished medical gentleman from the highest university of Europe, with his seven times compounded prescription, which none but a skilled chemist could fill, with his syngnograph, stethoscope, thermometer, microscope, test tubes, and various other apparatuses of diagnosis and prescriptions? I know you will accord our home taught compendium the preference. But that was forty years ago for this region, but it is even now in many parts of our State, that the doctor must practically acquire an accurate knowledge of botany, pharmacy, chemistry, practical medicine, surgery, cookery and nursing. But time has advanced apace, and medical science has become classified, and medical education is taught by not one man, but by many teachers to our students. And the physicians themselves have become organized into classes. Some practice surgery alone; others take the various fashionable or real special branches, as diseases of eye

and ear, throat or lung, skin or toes. Some are investigators and only study and teach, as Claud Bernard and Flint, or Brown-Sequard. In physiology many eminent men take the field of chemistry; others comparative anatomy, botany, pharmacy, etc. But there is still a large class of good and true men, who are family doctors, and God forbid that this tendency to classify and split up into special branches should ever diminish this most useful, overworked class of practitioner.

TO BE A SUCCESSFUL PHYSICIAN

Requires two parties at least—a doctor and a patient. Let us see what the patient says—ah! what does he say? Just one thing, “Cure me doctor, oh, cure my child. Oh, relieve this pain.” That’s all it amounts to. He does not ask if you have seven diplomas from the most learned universities of the world, or if you can speak Greek, Latin, French, German, Italian, Spanish, and Portuguese, or if you have all the newest apparatus or the latest medicine. No, it is relief from the cutting pain, the ravages of the disease or the soothing of the wild alarm that racks him at the thought of death. Pain is no respecter of persons or of acquirements, and gets no respect in his victims. I saw a pious man suffering from an agonizing sciatica. His friends, thinking he would die of pain, asked if he would not like to see a clergyman, “Oh, yes! send for a preacher, a priest, or a whole conference, or the devil, or any body, if it will only ease the pain.” Now that is the doctrine held by the people to be doctored. Now, if the student have acquired, by study and observation, the power of controlling this pain, arresting this disease, or of assuring his patient of its character, its duration, and favorable termination, the physician is made, patients are gained, and the road is opened to professional success. How shall the student best fit himself for the duties of a medical practitioner at the present day in America? You would naturally suppose I would reply by saying, “Let

him attend a reputable medical college of the time honored sort." But I could not recommend that as an end, only a means, to assist you more readily to grasp the practical study that awaits you at the bedside. 1st. As to a medical college, what is it? The colleges of half century ago were few. They were well adapted to the mode of practice and the class of practitioners in America. They did not ape the European schools. This faculty was composed of men for whom we have a feeling of respectful awe at mention of their names to this day. Their graduates to-day lead the world in the practice of medicine and surgery. They taught anatomy most thoroughly, and added to it the principles of physiology without a separate chair. Surgery covered the whole surgical field, so well that many of the graduates of that day have stood, and yet stand, in the highest ranks of this art. Chemistry and materia medica were taught frequently by one professor, and with a chair of practice, and another of obstetrics. The faculty was complete. Others had a faculty of six and seven professors. If you turn to the numerous annual announcements of the various medical colleges of to-day, you will be astonished to see many of them present you with from thirteen to twenty or more names, under the head of faculty, and each gentleman has more astounding qualities and titles than the one before him. You at once begin to thank your stars that you were born, and entered upon your study of medicine when the science had grown from a six professor faculty to four times that. Alas, but go to

THE BEDSIDE—DISEASE

Is just as rife—pain as much and hard to bear—and the patient asks no questions as to the number or titles of your instructors, but asks you—not for your books or your lectures—asks you to give relief and assurance. Then why so many different branches of science, taught by so many different men? I can give but two reasons. There is a mania now days that every one, man, woman

and child, should know all the sciences. Our school committees and college professors are determined that every girl and boy must have science; the mathematics of Laverrier, the physics of Tyndall, the chemistry of Leibig and Faraday, all the physiology of Claud Bernard and Flint, the geology of Lyell, the zoology of Agassiz, the astronomy of Herschell, must all be crowded in elements, at least, upon one small imperfectly developed brain, and a minus of twenty-five pounds bodily weight at sixteen years of age; all this crowded into what nature intended for an honest granger, an active mechanic, an engineer, a foundry-man, or perchance a vender of stale fish or of second-hand clothing. And the poor girls, with all this science, a dabble of music, a daubing of paint, all to be turned into a sickly broken-down mother of colicky infants. But this is little to the accepted curriculum of a medical education of to-day, which has been brought about by the devotion of certain men of means to the investigation of natural phenomena, and the work of specialists, with a desire also to imitate continental schools, where ten months of each year, for five years, is devoted to medicine and its branches alone, after two have been spent in chemistry, physics, physiology and anatomy.

Lister to the subjects that are presented to a student in a two years course, which means ten month's study in one of our fashionable colleges.

1. Principles and practice of medicine; practice of surgery; orthopedic surgery; clinical surgery.

Principles of surgery, with diseases of genito—urinary system; clinical disease of women; obstetrics; diseases of women and children; materia medica—therapeutics; disease of mind and nervous system and clinical medicine; physiology; physiological anatomy; descriptive surgery; chemistry and toxicology; microscopy, etc. Which with assistance, takes the talents of twenty-eight professional men. Think of this

BRAIN-CRUSHING STUDY

And pause; all to be learned in ten or at most fifteen months; the accumulated wisdom of specialists and students, investigators, and scientists, since the days of Hippocrates, to be crammed into the recesses of fifty-two ounces of brain matter. And after it is all there your patient is asking the same question: Can you cure me, relieve me, or give me hope? And this brings the question back as to what to do with your time—what knowledge is of most worth to your patients. And here would be my advice: The Indiana Medical College will put before you the means of acquiring knowledge, as far as possible, practical in character, for treating diseases. medical and surgical, of this climate. If you purchase all the expensive works on chemistry, of physiology, or special branches, you will find them dead letters on your hand. Unless you expect to be an experimental investigator in chemistry or physiology, give them but due respect in their relation to cause and cure of disease. Botany is interesting and pharmacy may tempt you, but remember skilled chemists and druggists now put them in your hands better than you can make them. Of specialists, rather see what they can do than to each endeavor to accomplish all their art. Specialty has its weaknesses, and is more followed by unscrupulous persons than by working investigators, which I say without intending to disparage those who are recognized as skilled physicians. But if you are going to be specialists be physicians first; and when you find you successfully possess those qualities so requisite for special practice, then put yourselves under the best instruction in the land. But I speak to you as men who would be physicians, and beg of you to become close observers of clinical facts. Be not carried away with new instrument's or the last new fashionable medicine. And above all discard not the old; old knowledge in old books is like ripe old wine. The new facts in the collateral sci-

ences chemistry, physiology, etc., are simply to be added to your older stock of knowledge. Remember that all the real advances in medicine and surgery have been made not by investigators, but by your hard-working, daily-plodding practitioners, just as all the inventions of importance have come through the hands and heads of practical mechanics. But you may think I underrate the mighty strides of scientists and would destroy the power of specialists. Oh, no. Everything in its place. The tabulator of cases, the chemists, biologist, and all others have their great good use. But a quart cup can never hold three pints at one time, and you can not do all. And those men are learning facts for the physicians. As proving the suggestion made by the observing doctor, you are

STUDYING HUMAN BEINGS

In suffering, and do all you can to relieve them and it is enough. Therefore, neglect no opportunity of seeing persons who are sick, and with laudable medical infidelity examine for yourselves and test the facts before you. Remember, at the same time, that to relieve disease you have not only a body to administer to, but a mind also; and the well recognized fact of the influence of the mind over the body should put you on your guard in the treatment of cases where temperaments differ. No physician doubts the fact that a fright will stop the secretion of milk of mothers; that anger will change its properties. An imaginary fly in a cup of coffee will produce nausea, and imaginary blood-letting will produce syncope.

QUACKS AND OLD WOMEN.

I suppose there never was a well-ordered medical address that did not say something of quacks and old women, and I only wonder that we do not have in some of our first class colleges a chair devoted to that subject.

A quack in medicine is a dishonest medical practition-

er, and an "old woman" is a talkative egotistical doctor, full of every new notion. Of ignorant pretenders who are successful, and old women of repute, be not afraid. You will find they have either a potent remedy or a power over the mind of the patient which would be useful for you to have. "Remember," said Dr. Rush in addressing medical students, "how many of our most useful remedies have been discovered by quacks. Do not be afraid, therefore, of conversing with them, and of profiting by their ignorance and temerity. Medicine has its phrases as well as religion; but the spirit of this sect is as unfriendly to the advancement of medicine as it is to christianity. And while I say to you go cull the ripened grain, do not spend your short period of the lecture term in matters of little worth, because they do not relieve your patients, and give you no power of disease. And if you have not time to pursue those pleasant fields of collateral study, you will certainly have no time to either quarrel with your professional brethren, or to waste in abusing those who differ with you in their medical views. If you would be a physician, turn your back to all else the while, and let your patients be the constant study. Better if the patient was studied more and the last new medical book less. Finally, as men and gentlemen conduct yourselves while pursuing your studies here. The public have an idea that medical students are, as they say, "hard" and "wicked" young men. It is a mistake. If to-night I was to call for volunteers, from a hundred students ninety-five would go with me to Memphis or any other stricken region to attend the sick and dying, to nurse, feed and comfort them. And I venture to say no school of law or theology, and no other order or class of people (except the religious orders of the Roman Catholic Church,) could show one-fourth the number of brave men. Then medical students are not hard nor wicked. Finally, let us band together for

a winter's work, treasuring up each golden moment, concentrating our minds on the subject that will sharpen our weapons and strengthen us to do battle with pain and the destroyer.

ADDRESS BEFORE THE ALUMNI OF THE
INDIANA STATE MEDICAL COLLEGE, FEB-
RUARY 27, 1874.

BY M. F. CRANE, M. D., ANGOLIA, IND..

Mr. President and Gentlemen of the Association—Another year has passed and gone, and with it has returned another anniversary of the Indiana Medical College. It becomes my duty to offer a few remarks for your consideration; and the subject that I have chosen, as one appropriate for the occasion, may be expressed by the two words, Retrospective and Prospective.

Some, perhaps, will say that this subject is an old one, that it has been worn and tattered by the eternal harangues that have been pronounced about it. Be it thus! Did they but know it every thing is old! The green waving forests mournfully murmur age. The eternal mountains have age written upon their snow-capped summits, and the world has been forming for thousands of centuries.

In looking over the past one can not but feel that much has been done to reflect credit upon those concerned; of course I speak strictly with regard to our association and its surroundings.

But a few years ago and Indiana had not the facilities for educating her young men in the science of medicine, and all those who wished to enter the profession had to patronize institutions of other States, or apply their efforts to the best of their advantage under the direction

of a preceptor, and commence practice without a diploma to aid them.

Of the trials, difficulties, and hardships the old pioneers in medicine underwent, I need not dwell upon, it is only necessary to mention them to call to your minds the difficulties under which they labored. Living in thinly populated districts, deprived of the benefits of a good medical school; obliged many times to make long and arduous journeys and receiving but a small pittance for their service, we must *always* admire the energy of purpose that enabled many of them to overcome all their difficulties and working out many difficult scientific problems arise to honor and distinction in their beloved profession.

It is not our purpose to notice in detail all the events that have transpired in the history of medicine since Indiana was an almost unbroken forest, through which roamed the wild beasts and was inhabited alone by the red man. Neither have I the time, space, nor ability, nor is this an appropriate occasion to notice the rise and fall of the various medical schools that have sprung up from time to time during the years that have elapsed from the earliest medical history of our State, up to the time of the founding of the institution that now exists, and of which we feel so justly proud.

You will allow me, however, to call your attention to a few facts connected with the history of the Indiana Medical College, and should I become somewhat enthusiastic over the subject, my love for our Alma-Mater—that cherishing mother who gave birth to our title as medical men, and who furnished us with a passport into the ranks of our noble profession—must be my only apology.

From the year 1852, for a period of seventeen years, there existed in Indianapolis no institution connected even in a remote degree with medicine; and this was not because of a lack of material to support a medical

school, nor of a lack of talent in the profession to furnish the facilities for instruction, but because of a general apathy of the physicians of our State upon that subject.

In the spring of 1869 there existed in this city what was known as the "Academy of Medicine," composed of a few learned and determined men, who had for their object the advancement of the science and art of medicine, and the promotion of the welfare and interests of the members of our profession. The "Academy of Medicine" determined that Indiana should not be behind her sister States in this respect, set itself at work to organize a medical school. Of the difficulties under which they labored, and the doubts that filled their breasts as to the perpetuity of the institution, I need not speak; it is too apparent to require it, suffice it to say however that after meeting with many obstacles they at last succeeded in removing or conquering all opposition and established the institution that now exists, the Alumni of which we have the honor to belong; and to-day Indiana can boast of a medical school in many respects second to none in the west. The profession of other States, as well as of our own, accorded to it a liberal patronage, for they not only appreciated the efforts that were being exercised in its behalf, but they also recognized in that faint glimmer of light far down in the horizon a star of the largest magnitude, which star would continue to increase in splendor, in brilliancy, until bursting the cloud of time and dispelling the darkness and mist that surrounded it, it would be found in its place among the constellations of the starry heavens, in the glittering firmament of medicine.

Thus it is that, taking a retrospective view of the past few years, we behold progression manifested at every step. Change, ceaseless and untiring, is visible upon every hand, and progress is the watch word of to-day. He who does not keep this in view, and endeavors to keep up with the spirit of the age in which he lives,

will awake—if indeed he awakes at all—to find that the car of progress has left him so far behind that it will require a great amount of exertion to overtake it.

But we pass from the retrospective to the prospective. From a consideration of the past and present, to the consideration of the future. If the retrospective view is so pleasing, what must be the prospective? If the achievements of the past are so great, what must be our anticipations of the future? If our forefathers, surrounded as they were by innumerable dangers, and enshrouded by the dark night of ignorance and superstition, were enabled to overcome all these, and place the science of medicine upon a sure foundation, what must we accomplish in this enlightened age, when many of their difficulties have been effectually removed, and the arts and sciences so far advanced toward perfection, as to explain many things that were before shrouded in mystery for many generations.

This is truly a progressive age. There is no stand still. Every branch of science and art is making almost superhuman efforts to break the bonds of opposition, ignorance, and superstition, that have held them captive so long, and approach as near perfection as possible. While we must confess that for many years the science of medicine made but slow progress, yet its progression was sure and effectual, and to-day it stands upon a foundation impregnable as adamant. Built upon a rock which the surges of time can never undermine, and the onward march of science and art only serve, as it were, to fortify its position.

Although this is a fact, yet there is *much* that is left for us to do; and so long as there remains a single disease that flesh is heir to, that is not thoroughly understood in all of its bearings and complications; so long as there can be any condition of the human economy not understood by the profession; so long as there remains a single point of doubt in any branch of the

science and art of medicine, we can not consider it perfected nor our mission here on earth, as a profession, completed. Thus you will see that, while much has been done by our ancestors to perfect the science, still *more* is expected of us. Guided by the light of the experience of others, and assisted by the onward march of progression, we must continue to overcome difficulty after difficulty, removing doubt after doubt, until disease shall no more run rampant over our land, and death shall be what it was intended by nature to be, a relief from the infirmities of old age. To those who have just become members of our association, we would extend a cordial welcome and a few words of encouragement. One short year ago and we stood where you now stand upon the threshold of our profession; we were influenced by the same feelings, inspired by the same hope, and prompted by the same desire to go forth to the relief of suffering humanity.

We stood as you now stand with our diplomas in hand, ready and anxious to grapple with that "grim monster death" in all its forms, and battle for the relief of the suffering of our race. We went forth as you will go, expecting to become reasonably successful in our pursuit, and so far as the past year is concerned, we have much to be grateful for. The degree conferred upon you by this institution, is evidence of attainments of no mean value; indeed it is the insignia of a good medical education that must command respect wherever you go. Our success in the future, however, depends very much upon ourselves. If we would arise to any honor or distinction in our profession, we must study hard, labor long and toil late. In the language of the poet—

" Let us then be up and doing,
With a heart for any fate.
Still achieving, still pursuing,
Learn to labor and to wait."

Proceedings of Societies.

NORTH-EASTERN INDIANA MEDICAL SOCIETY.

The Society met at Angola, Tuesday, March 31st, 1874. Vice-President Haggerty, of Steuben county, occupied the chair. Minutes of preceding meeting were read and approved. The Censors reported the following names for membership: N. E. Bachman, B. E. Miller, S. C. Van Antwerp. A. F. Whelan, of Hillsdale, Michigan was elected an honorary member.

H. D. Wood, chairman of the committee on diseases prevailing in the district of the Society, made a partial report, but asked for time until the next meeting to make his report complete. Granted.

The committee appointed to compare the old and new constitutions, reported in favor of re-adopting the old. Report was received and the committee discharged. J. L. Gilbert moved that the old constitution be re-adopted. Carried.

Under the order of Clinic, D. J. Swartz presented a patient for examination and treatment. Female, aged twenty four. A year ago she became afflicted with inflammation of the sub maxillary glands. This continued some three months, when it subsided, leaving the glands enlarged, hard and somewhat painful. (Her mother had died from a similar ailment.) She had suffered once before with the same disease, but was cured after three month's treatment. The case elicited considerable discussion. It was regarded as non-malignant, and that iodism, with good hygienic conditions would cure the patient. Some objection was made to iodism on account of danger of producing gastric derangement.

T. F. Wood read a report of a case of ovarion tumor. He presented the tumor, which he removed *post mortem*, for inspection by the members. It was fibroid and of

the motilocular variety. An operation ante mortem, was believed to have been impracticable.

H. D. Wood reported the following case: Female, age fifty years, until three years ago in good health. She began to complain of slight paroxysmal pain in the left iliac region at intervals of from one to five weeks. Her general health gradually failed, and her abdomen began to enlarge on the left side and upwards, interfering with resp'ration—dullness on percussion, urine scanty, nausea, etc. By tapping he removed twenty-two lbs. of fluid, which produced temporary relief, but not complete disappearance of the tumor. It continued to decrease, however, for four weeks, when it began to enlarge again. It is disconnected with the uterus. Diagnosis: Ovarian tumor of the multilocular variety. The tumor is movable, indicating no extensive adhesions, and its removal by the knife was advised.

A. F. Whelan—What amount of adhesions would be necessary to preclude an operation?

H. D. Wood—I would operate even with considerable adhesions. In commencing the operation of ovariectomy I believe the first steps to be explorative, and we cannot tell until we have to some extent exposed the tumor whether to proceed with the operation.

A. F. W.—I would not operate where there are extensive adhesions. What do you think of injections to obliterate the cavities of the tumor by adhesive inflammation? And how do you like removal of the fluid by the aspirator?

H. D. W.—Gynecologists generally condemn injections, although it is recommended by Baker Brown. I know nothing of the practical use of the aspirator. I believe it good practice to connect the cavity of the abdomen with vagina by a tube to drain away liquids which accumulate after the operation. I would apprehend no danger from introduction of air into the abdominal cavity any more than from the same cause after the operation.

for empyemia. The great mortality from the operation is not the introduction of air but the accumulation of liquids after the operation.

A. F. Whelan reported four cases of pelvic abscess resulting from pelvic cellulitis. Additional cases were reported by Drs. Cowan, McNabb, Spooner, Haggerty and Gilbert.

The Society took up "Bromide of Potassium as a narcotic" for discussion.

A. F. Whelan—I do not believe that bromide of potassium ever produces fatal narcotism.

H. D. Wood—I am in the habit of giving it in from sixty to one hundred and forty grain doses, with good results. It never produces fatal narcotism.

J. L. Gilbert. I have given the bromides extensively for eight years, and have never known them to produce profound narcotism. I am in the habit of giving bromide of potassium in from twenty to sixty grain doses, beyond which I would not increase the dose, as it might produce gastric derangement without producing any additional benefit. No case of fatal narcotism from bromide of potassium is on record.

Drs. Cowan, McNabb, and others, expressed themselves upon the subject, and the same opinion of its narcotic power was held by all present.

The following gentlemen were elected delegates to the American Medical Association, which meets in Detroit, in June: J. L. Haggerty, S. C. Van Antwerp, J. B. Casebeer, G. Erickson, Jared Spooner, T. F. Wood, H. D. Wood, T. McNabb, J. L. Gilbert.

The Secretary was instructed to give credentials to any other members who were anxious to attend; also to furnish members with credentials as delegates to the State Society, upon application for the same.

The subject for discussion at the next meeting will be the "cumulative effects of medicines." Essayists for

the next meeting, Geo. H. Dayton, of Lima, C. S. Frink, of Elkhart, C. A. Cowan, of Auburn.

Adjourned to meet at Kendallville, the last Tuesday in June, 1874.

J. L. GILBERT, *Secty.*

J. L. HAGGERTY, *Acting Pres.*

HAMILTON COUNTY MEDICAL SOCIETY.

Met Feb. 17th ult., Dr. H. W. Clark, in the chair. After the usual preliminaries, a paper was read by Dr. F. M. Worfort, of Cicero, upon constructive and destructive, metamorphosis of tissue as relating to disease of the human body, in which the Doctor took the position that disease consisted essentially in a predominance of destruction over constructive metamorphosis of tissue. A lively discussion followed in which the Doctor defended his paper in a manner that denoted familiarity with his subject. A lively discussion was also had on the effects of alcoholic stimulants as a therapeutic agent.

The attendance was not as great as it should have been, but the occasion was one of profit and interest to those in attendance.

Our Society is yet in its infancy, it being organized in July, 1873. The Society numbers about 30 members, and in it there is the ability and medical education to make one of the most able and flourishing societies in the State. The President (Dr. H. W. Clark,) is one of the oldest practitioners in the State—his practice running back over a space of 40 years. He has a medical and miscellaneous library that will compare favorably with any private library in the State.

Our regular day of meeting is on the third Tuesday

of each month at 10 A M., and place of meeting—Dr. Clarks' office.

Visitors from the profession are always welcomed.

W. B. GRAHAM

Reviews.

LECTURE ON THE CLINICAL USES OF ELECTRICITY, delivered in the University College Hospital, by J. Russell Reynolds, M. D., F. R. S. Fellow of the Royal College of Physicians, etc., etc. Second edition; Philadelphia, Lindsey & Blackiston; Cathcart & Cleland, Indianapolis.

These lectures were published in the London *Lancet* during the time they were being delivered, in 1870, and embrace besides general remarks on the clinical use of electricity, a description of the various forms—franklinic, galvanic, and faradic—after which its diagnostic and therapeutical uses are noticed, and a short appendix as to the requirements of the electrical room. It seems to be a clear expose of the subject, and at the same time compact.

THE CHICAGO JOURNAL OF NERVOUS AND MENTAL DISEASE, edited by J. S. Jewell, M. D., Professor of Nervous and Mental Diseases in Chicago Medical College, assisted by H. M. Bannister, M. D.; January, 1874.

This in appearance is a very fine journal, of 114 pages, of original articles, translations, etc. It has lectures on the Pathology of the Vaso-motor Nervous System, by the editor of the journal. The Physiology of Vomiting, by A. E. Ornellas. Syphilis, Hemiplegia, Asphasia, recovery from, by H. W. Jones. The innervation of the Spleen, and its connection with Leucocythemia, by Dr. von Tarchanoff. Observations on the use of Croton-chloral Hydrate, by Oscar Leibreich. On the relation of the Heart's action to the Nervous System, and to

Mental and Emotional states, by E. Cyon, St. Petersburg. Reviews, etc., and a Periscopic department is added. If the subsequent numbers keep pace with the present, the journal will be a success.

CONTRIBUTIONS TO THE STUDY OF YELLOW FEVER.—

A.—The distribution and Natural History of Yellow Fever in the United States, with Chart showing elevation of Localities where it has appeared from A. D. 1668 to A. D. 1874, by J. M. Toner, M. D.

B.—The Yellow Fever epidemic of 1873, reports from medical Officers, U. S. Marine Hospital Service, with note from the Supervising Surgeon, John M. Woodworth, M. D.

The two gentlemen who contribute to the medical literature of these two articles, have already made themselves names that are national, and will, if they but continue to labor, be historic. We think we have mentioned before that such examples ought to be a rebuke to those who "have not time" for scientific or literature labor, yet waste more time than would be required in doing "little nothings." Unhappily our profession is full of the latter material. Some, we admit, are not to blame, they have not the ability, others can not plead this excuse *in toto*.

In the article of Dr. Toner several points of importance are treated upon. A few extracts will perchance be the best mode of presenting them to the world.

"The conceded home of yellow fever is in the West Indies and the Bahamas, with a portion of the adjacent continents of North and South America. A square formed by the forty-fifth and the one hundredth degrees of longitude, and the thirty-fifth north and the fifth south latitude, will include the favorite region of this disease.

"Although originating within the square named, history shows that it may prevail on the sea-coast in any locality within the tropics, north and south of the equator, where malarial fevers prevail, and the daily average of the thermometer is over 75° or 80° with a high dew-point for weeks or months together.

"If these latter conditions, however, were the only ones necessary to the development of this disease, it

should prevail much more widely ; for they exist, during parts of the summer at least, in almost all of our Atlantic cities, as may be seen by reference to the record of temperature as shown by the admirable isothermal maps in Lorin Blodgett's *Climatology*.

"Yellow fever does not prevail in the East Indies nor in China. It has appeared in most of the maritime cities of the United States on the Atlantic coast, as far north as Boston, and indeed has been chronicled at Quebec and Halifax. But while it is true that it has thus visited many of the cities and towns on the sea-coast, it has, fortunately, never extended far into the interior of our country.

"In the United States, it seems to prevail in the large sea-ports and in localities along the navigable water-courses having their outlet in the Gulf of Mexico. Dr. Drake, many years ago, observed that while the disease had appeared at almost every town on the Mississippi, as far up as Vicksburg, that Woodville, twelve miles from the river, was the most remote inland point it had reached."

"It has been observed that its epidemical limits coincide with the range of the growth of the live-oak, the cypress, and the long mosses. Certainly the regions of our country most frequented by this disease are particularly low and flat, with numerous rivers and much marsh and swamp lands, as may be inferred from the localities and their elevations marked on the map.

"Yellow fever has been considered by nearly all writers a distinct disease from the autumnal remittent fevers of the temperate zone. All agree that it is indigenous at Vera Cruz on the Gulf of Mexico.

"Protracted average high temperature is a constant factor there, but this of itself is deemed insufficient. The time has, perhaps, not come, if it ever does, for the discovery of all the elements entering into its development.

"As we have already stated, the conditions of long continued heat, average over 75° throughout the twenty-four hours, and great humidity exist almost constantly during the summer in the Gulf States. Occasionally during the summer season, for months together, this condition of high temperature, but with less moisture, may exist in many of the coast cities of our country, as far north as Boston, and yet rarely ever are these cities visited by this disease in an epidemic form.

“Is the exemption of these more northern coast cities due alone to climatic conditions, or are they in part exempted by sanitary and quarantine regulations? Yellow fever is almost annuly reported on vessels at the quarantine atations, where it is fortunately arrested and prevented from entering the cities.”

Dr. Woodworth speaks as follows as to the effect of *preventive* means :

“Of more direct practical utility, however, is the study of measures of prevention—the answer to the question how far the use of carbolic acid is to be credited with the jugulation of the threatened epidemic at New Orleans and Mobile; to what extent efficient or defective sanitary measures affect the progress of yellow fever, in the light of the recent experience in the two former cities as compared with Memphis and Shreveport; what is proper quarantine for this disease at various ports, and what is the true scope, function and value of quarantine; can a quarantine be effective which does not embrace “commerce with foreign nations and among the several States” by land, as well as by water?

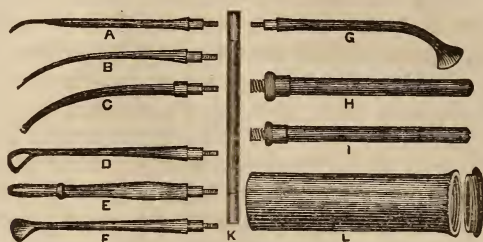
“Meantime, it may be remarked that the substantial immunity of New Orleans and Mobile from yellow fever this year, under similar conditions of repeated exposures on the one hand, and of well organized municipal sanitation, coupled with free carbolic disinfection, on the other, would seem to indicate that one or both of these latter are sufficient to arrest yellow fever, or at least to prevent its becoming epidemic. To what extent the use of carbolic acid is an efficient agent is yet to be determined; but of the value of general disinfection, thorough cleanliness, good sewerage, pure air, unpoluttet water, wholesome food, individual hygiene—in short, of what goes to make up a good sanitary condition, there can be no question.”

Editorial.

STAUFER'S SUPPORTERS.

Of Mr. Stauffer's instruments we have before spoken. Being composed of hard rubber they are light and indestructible, at least as much so as any. The accompanying cut represents a new addition to his series :

HARD RUBBER UTERINE EXAMINING CASE.



The screw top case L, contains a series of useful instruments in a compact form. The patient's fear of cutting by metal is by them avoided. A, is a pointed probe, yet not cutting as metal would be, by which the virgin os may be entered. B, a slim sound. If the point of either is dipped in a solution of the now popular Iodine, &c., a sufficient quantity can be carried repeatedly within the internal small os, where no brush can be made enter. C, is a strong sound. D, a shifter; by it the os is readily brought within the speculum. E, a sponge or swab forceps. F, a test auterversion elevator. G, a retroversion lever. These all screw on either end of the centre piece K. The screws are brass, and the joints neatly capped. H, a quill caustic holder and case. I, a fluid caustic brush holder and case.

Price complete, \$8. Caustic holders H, or I, each \$1 25

THE State Medical Society will meet the third Tuesday in May (19th.) The Session will be held in the Hall of the Indiana Medical College, Indianapolis.

THE American Medical Association meets June 2nd, in Detroit Michigan.

Miscellaneous.

CHINCHO-QUININE.

The following communication from J. F. Miller, M. D., of Goldsboro', N. C. appears in the *Philadelphia Medical and Surgical Reporter*, of February 14th, 1874:—

The comparatively new article of medicine, *Chincho-Quinine*, having become a subject of much comment by quite a number of medical gentlemen, I have been induced to try it in my own practice. I have been using it freely for about twelve months, and have fairly tested its virtues, both as a tonic and antiperiodic, and I can safely recommend it to my professional brethren as a most valuable medicine. I have observed but one unpleasant effect on children, *i. e.*, an efflorescence of the skin after giving the medicine for several days in full doses; but this effect is comparatively rare and really of little importance. I do not regard the chincho altogether equal to the sulphate of quinia as an antiperiodic, of the same quantity by weight, but probably about one eighth weaker; that is to say, it will require one eighth more by weight of the cincho to make it equal to the sulphate of quinia as an antiperiodic. But the sulphate costs a little more than one third more than the chincho, which as a pecuniary investment, leaves a balance in favor of the latter article. The chincho-quinine certainly agrees with the stomach better than the sulphate, and produces little or no nervous derangement, and is consequently preferable to the sulphate in many cases. Notwithstanding the eruption that now and then appears from its exhibition to children, I regard the chincho-quinine the very thing for this class of patients, for by making an elixir of the medicine, they take it very readily, which is a most important consideration.

The following are only a few of the many cases of children treated with the chincho-quinine, and I also

give the formula used by myself in preparing the elixir:

Ella, child of W. F. F., æt. eighteen months, has had intermittent fever, quotidian form, for several days. Chill believed to appear from eight to ten o'clock A. M. Chincho-quinine grs. vij, Aro. sulph. acid gtt. v., Syr. zingiberis, Aquæ rosæ, ʒss. Mix and dissolve. Sig. Teaspoonful at eight and eleven P. M., and two and five A. M.

No perceptible chill, but a slight fever came on about one o'clock P. M. Repeat the prescription at five, seven, nine, and eleven A. M., following day. Result, no chill or fever, and patient recovered without further difficulty.

Tommy, son of T. B. H., æt. five years, has had two chills, tertian form; the last chill being very severe and fever lasting unusually long; bowels costive. Time of chill seven A. M. Hydr. chlo. mitis, Leptandrin, gr. ij M. Sig. Take at bedtime.

Medicine acted well early next morning, and at eight and eleven P. M., and two and five A. M., two teaspoonfuls of the following mixture were given:—Chincho-quinine, grs. xij., Aro. sulph. acid, gtt. vij., Syr. zingiberis Aquæ rosæ, ʒj. Mix and dissolve. Result, no return of chill or fever, and patient rapidly recovered. The remainder of the prescription was given to him in teaspoonful doses *ter in die*.

The last case that I shall (though many others might be given) is that of my own child, Charley, æt. seven and a half years. To him I gave the same prescription given to child of T. B. H., with a like result. A few drops of tinct. cinnamon will add to the agreeableness of the elixir of cincho-quinine.

CRUVEILHIER—the great anatomist and pathologist, died in Paris on the 11th of March, at the age of 83 years.

Dr. Hays

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Original Communications.

CHOLERA AS APPEARING IN INDIANAPOLIS DURING THE SUMMER OF 1873.

Report made to Board of Health, Indianapolis.

BY THAD M. STEVENS, M. D.

We are well aware that a difference of opinion exists among physicians as to the nature of a certain phase of disease that appeared among us in this city during last summer, some believing that it was Asiatic Cholera, others that congestion, having for its cause and assuming the same or a closely allied form, as that generally denominated congestive or pernicious fever—when Doctors differ we perchance would be bold in deciding—therefore, we shall present the facts in the case, leaving every one to judge for himself as to the truth or falsity of either supposition; our own views, however, will without doubt crop out in the remarks made.

WHAT WAS ITS NATURE?

And first let us examine the cholera theory and such facts as seem to bear thereon. That the specific disease

termed Asiatic Cholera, can be traced from the western coast of Europe to New Orleans, is asserted by many; not that any individual case can be specified as the *fons et Origo*, either upon board ship or after the arrival of such at our wharfs—and this is one principal reason why some deny any such connection, asserting that as far as we are able to judge, the disease considered was indigenous—the cholera remained in Europe—*this* disease appeared *De novo* in America—if this be true then of course it settles the theory of cholera in the negative, or else cholera is *not* a specific disease, and therefore, more properly obey the laws of *non-specific* diseased action—the latter conclusion at least we apprehend cannot be entertained at this time. There is a belief that true cholera can become indigenous in this country as well as in Asia and *a priori*, no good reason can properly be advanced against it, at least in our present state of knowledge—for we know not why it should have its home in the jungles of India, and be generated first in pilgrimage to Holy Cities. Whether the germ is always active or sometimes latent and brought forth by appropriate surroundings, science is at fault, and theory intermingled in an inexorable manner—we are left largely therefore to the history of the general appearance and must strive to reconcile the various circumstances connected with each visitation.

1st. It may be set down as a mistaken idea that cholera epidemics can always be traced with an unbroken chain—some links are often absent—whether it be that the morbid principal is carried through the atmosphere and deposited upon the body of persons, leaving all between two certain points uncontaminated, or whether points of deposit with consequent results occurred immediately but remain unnoticed, we cannot say; but that it appears in a manner that it can be noticed and investigated at points far distant from each other remains a fact. Yet this is not taken by any candid enquirer as proof against

ts specific nature and in any definite manner to show its sporadic origin. That certain circumstances and surroundings, however, are favorable to and will indeed often decide the question of cholera outbreak in any locality or individual, is doubtless as true as that the peculiar condition of the system will favor or discourage the manifestations of this disease. But this in no wise invalidates the idea of specific origin—therefore “sporadic cholera” synonym as with *true* cholera is a misnomer. Filth may increase the mortality from this disease as privation is known so to do—it never *originates* it.

2nd. Cholera may be general—its course plainly marked as to all appearances, skipping from place to place, assuming the form and going by the name of epidemic, or its manifestations may be local only. Of course the latter phase can be explained upon the principal mentioned in No. 1—and it often first appears thus—and often after the abatement of the disease, and its supposed entire disappearance, it reappears localized but well defined. Whether in these cases it has lingered in some safe receptacle, such as closets, cellars or cesspool, or whether fresh germs have been imported is uncertain.

3rd. Its contagiousness was at one time disputed, and we well remember during its prevalence in 1850–1, its epidemic nature was everywhere acknowledged to the exclusion of propagation by contagion; *now* its contagious nature is adduced in any given case as a cogent proof for or against the reality of its existence, and in doubtful cases is the sheet anchor of diagnosis with many. No difference what other points tend to confirm, if contagion cannot be *clearly* made out the idea of cholera is dropped as visionary.

In our opinion, the truth is that it may be endowed with, or at least may manifest contagious property during one *time* or at one *locality*, and that this property may not be exhibited or in an almost imperceptable de-

gree at another time or place. The history of the general visitation of this disease, at different localities prove the truth of this assertion. Whether its contagiousness exist equally in all cases, or the manifestation of such property, are only hid from observation, we will not say, in either case the physician viewing it in its isolated character would be apt to form his opinion according to the facts there present, and generalizing thereon would naturally clothe cholera with a contagious or non contagious nature, to be fully recognized as the major factor in diagnosis. But when we take the broad view of embracing its course and character in various spots, we come to look at this as only *one* item which by its self—either as to its absence or presence, goes for very little in settling the question of diagnosis. That cholera poison is contained in the dejections of the diseased person is we think, a settled point, and that this poison can thus be taken into the system by medium of such dejection more particularly by water drank being impregnated therewith, or by inhaling the particles emanating from such dejections, and floating in the air, is, we think, equally certain. If we investigate the laws by which impregnation of water, etc., by such material is produced and the circumstances under which the morbidic particle will be found in the atmosphere breathed in any individual case, we shall be upon the correct route to the solution of the question of contagion or non-contagion and the reconciliation of the various views. We must recognize the fact that wells and other water supplies, can be impregnated by the poison, that such dejections are scattered under favorable circumstances through the air, etc., also that such material can be carried upon clothing, etc., to distant points, and there enter the system of other individuals, thus causing new centre of disease. We must remember the teaching of experience and experiments, that in certain conditions of the system the poison loses its power of harm, be-

ing in some way rendered inert. Just what the circumstances are that repel or neutralizes the poison, we may not fully comprehend, but all experience shows us that as the more general vigor and normal health exists the less is the susceptibility to this disease, and experience corroborates in one respect at least, the teachings of experience, for if the stomach be in normal condition, the dejection taken in, if not in too large quantity or too much diluted, meets with *some* agent that destroys the *vitality* of the morbidic germ, and the individual escapes unhurt. By experiments it is found that *acid* will thus often render cholera dejections harmless, and it is therefore inferred that as the secretion of the stomach is acid when in normal state it is this that prevents harm in cases of the kind mentioned. Whereas, if it be in too large a quantity in the healthy secretion of the stomach to find a neutralizer, or if it be of so dilute a character that it will be propelled into the intestine whose secretions are alkaline and be absorbed before this antidotal effect is produced, cholera symptoms will supervene even if the person be in the best condition. So we learn that not all in a community will be attacked by the disease; that the nurses to cholera patients if only healthy and if they be careful in handling, or lucky in having no contact with the dejections, may and indeed must pass through the period of the disease, without being attacked thereby—that filth, privation, bad surroundings etc., do not and cannot *produce* cholera, but may either by placing the poison in a favorable position to the individual, or by bringing the system to a condition favorable to the activity of the cholera germ, be in fact the immediate cause of an attack.

To sum up the treatings of all the facts collected upon this subject we may say:

1st. Cholera always originates from a specific poison.

2nd. This poison is generally and perhaps really contained in the cholera dejection.

3rd. It may sometimes be carried through the atmosphere assuming the form of an epidemic.

4th. It may be taken into the stomach or inhaled into the lungs of the individual in actual contact with a diseased person; this constituting its *contagious* phase.

5th. That as between any two individuals subjected to the same causes, the healthy will escape, the weak and diseased will be attracted. This difference is caused by either some unknown power or property of the healthy organism, or in cases where taken by ingesta, by antidotal effect of the healthy acid secretion of the stomach.

6th. That filth of any kind has nothing to do with directly engendering this disease. Its influence in causing greater activity being manifested.

1st. In placing the system in a diseased or debilitated condition, thus favoring the action of the poison as stated before, or

2nd. In affording a more suitable nidus for the cholera germ—and that in these respects its influence for harm is undoubtedly great.

7th. The expression of our views upon these general points in regard to the subject was necessary that in its local relation in our own city, it should be properly understood. We leave the general for the special, and after a topographical description of the so called cholera, as it appeared among us during last year, shall give a general history of the various cases that we consider typical and having a bearing upon the question of its advent and spread, as also the causes favoring outbreak and the best means of preventing its appearance or checking its progress in the future. Among the means to prevent the appearance and check the progress of cholera, general quarantine is the first and best means at our disposal. It can be applied however only at points of general entrance with any degree of success, and if the germ of the disease has entered, we will have to depend upon a local *circumvalence* of the infected points, to *sanitary means and disinfection*,

to prevent the spread of the disease. Given a case of cholera appearing in any locality, we must first place the individual or family in which it appears in *quarantine*. Prevent emigration from or immigration to the infected house or locality. *This is the first and essential means of preventing its spread*, and with this alone, if we can only command the facility of its prompt and constant application, cholera can be *stamped out* in any given case. But as we often lack such means, there are other agents that should at all times be called into requisition, and first the sanitary condition of the locality, and if it be a city or town all that is embraced within this town, should be at once attended to.

WHAT IS THE SANITARY CONDITION OF ANY LOCALITY.

First, each house and premises connected therewith should be thoroughly cleaned, the out houses of every kind, privies, stables, etc., properly disinfected at various times, not relying upon *one* inspection and purification but systematically keeping it up until all fears of the disease have ceased. Cellars should be particularly attended to; the *water supply* should receive particular attention. If our idea of the nature of cholera be correct, water tainted by the cholera germ is *one* of the most frequent modes of its dissemination, and as seen by the cases reported, was no doubt the manner in which the poison was communicated in several instances, the surface water impregnated by the dejection having access to that used by the family. Although filtration if properly conducted will doubtless remove many sources of danger in this or similar cases, still we are certain that not only will *surface water* thus impregnated, finding its way into wells, etc., communicate the disease, but even if passed through a portion of intervening soil of no great extent, and of such a nature that absorption of foreign matter do not readily take place, will still contain more or less of the deadly germ in that condition suitable for propagation.

WHAT IS THE BEST MODE OF SUPPLYING DRINKING WATER.

Cisterns with properly constructed filters are without doubt the best reservoirs of drinking water, for although rain gathers certain impurity from the air and roofs of houses, etc., still it can be rendered perfectly free from any contaminating germ thus contained. Filters of most varied construction are effectual, but the best for a large or general cistern are the following :

1st. A filter or small cistern placed near the larger or general reservoir into which the rain is first carried, this small cistern is filled with pounded charcoal and gravel. This catches and retains the coarser impurities and most of the gaseous material that we wish to retain.

2nd. A vault of soft brick laid in cement, built upon the floor of the reservoir or larger cistern. Any competent cistern builder understands the principle and mode of construction. The soft brick acts as an effectual filter of the remaining impurity be they organic or otherwise that are contained in the water ; at least we can conceive of nothing more effectual than this mode to accomplish the ends in view. In addition to this, if practicable a house filter of charcoal and sand should be used through which the water is passed a second time. We will be willing to risk the danger of contracting cholera by means of water thus treated. Whether additional means are desirable and in *all* cases where water is not filtered in this effectual manner, it should be *boiled*, this will drive off the gasses that may be hurtful and destroy the solid germs suspended therein.

If wells are in use then attention should be paid to the drainage of the yard, and to the mode of disposal of slops, dejection, etc. It must be insisted upon that proper drainage from the well be instituted and nothing of a putrescent nature be cast upon the surface of the ground, but proper receptacle for such must be found by digging a pit in the yard wherein all such material may be thrown and properly covered up or disinfected by casting

upon it fresh earth and *saturating* them with solution of sulphate of iron *frequently*. *Frequent* cleansing should of course be insisted upon, not because we have any idea that cholera can be generated *de novo* from filth, but general health would be better preserved and thereby one *nidus* of the disease removed, and also because it would remove any germ of cholera if present and not yet taken a start. The clothes of the persons diseased as well as those of the nurses who come in contact with them should be by proper means disinfected, and among the most effective is that of the hot air bath heat sufficient being applied to destroy the cholera germ. If this is not done then nothing but the destruction of the infected clothes will answer the purpose.

While the home and premises are being thus effectually attended to, much more can be done to prevent the further progress of disease in the locality surrounding. Proper drainage of the town or locality should be attended to, having for its object and being conducted in the same manner as that advocated for the home premises; without this we are cleaning the inside of the platter and leaving the filth of the outside untouched, for although cholera is propagated by a specific germ, yet in accordance with views heretofore expressed, diseased conditions will result in consequence of improper drainage, and any diseased condition invites an attack of cholera.

Disinfectants are important agents in preventing the progress of many contagious diseases, those at least that are propagative by *germs*—cholera being one—a great amount of ignorance or at least misapplication of terms is prevalent as to this class of agents. A *deodorizer* is not by any means the same as disinfectant, the one only destroys the emanation from or intimate results of the decomposition of a body. The other *destroys* in some way the *vital properties* of the substance, so that it is rendered *inactive* and *inert*. Those *destructive* disinfectants

are numerous, but we shall only notice those that are within reach of all, and at the same time are most effectual. Sulphate of iron or copperas and charcoal. The first by oxidising the material, the last by absorption and retention of it in its pores are perhaps the best articles to use for the purpose of disinfecting semi-solid substances, or fluids, such as the contents of privies, vaults and water. A solution of five or six pounds of copperas in a gallon of water cast from time to time upon the material to be acted upon, together with a fair proportion of charcoal, will do all that can be done with any certainty for the disinfection of such material. Where it is practical fresh earth may be substituted for the charcoal. And the "Earth Closet" where arrangements can be made for its use is of immense importance. Ozone has been held by some as a true disinfectant, in sleeping apartments, etc., its evolution by means of sulphuric acid and permanganate of potassa is well worth a trial. One pint of the acid should be added to about two pints of the salt from which a slow evolution of this element will take place.

Sulphuric acid, produced by burning sulphur, is one of the best of ærial disinfectants. Of course it is not applicable in inhabited houses—at least should be used with great caution; but in any other case we should recommend it as an agent not to be dispensed with. That the general habits, dress and diet of each individual should receive particular attention during the prevalence of cholera, is very certain. It has been held by some that the mode of living has no effect as to the prevention of cholera attack. No greater heresy could be inculcated. It is very true that *as a rule*, one should live as he has been used to, *provided* he has been cleanly in person and surroundings — cautious in diet, etc.; *if he has not*, then he should change. It has also been asserted even by high medical authority, that fresh vegetables, fruits, etc., were not only permissible, but even exerted a bene-

ficial and curative influence in cases of this disease. All common sense is opposed to this idea; and indeed all reliable medical experience. They should not be touched, but emphatically interdicted. With the exceptions and within the bounds above mentioned, the habits and diet of those within the scope of the diseased district should correspond with that usual to each one.

That a full fledged case of cholera can be cured, is perhaps *possible*, but we assert nothing of the kind; if death does not result, it is certainly the exception, but that much can be done to prevent the full manifestations and effect of the poison, and indeed in its earlier stages to truly *cure* the patient is *as* certain. A large proportion of cases commence with diarrhœa. It is not the purpose here to describe the symptoms or discuss the causes of the disease, but when this *premonitory* symptom, as some would term it, but real commencement of the disorder according to our views, first appears, if remedies are directed to the alimentary canal, we are striking in the right direction. A physician should be applied to *at once*, no tampering with astringent or patent medicines. For if ever a cool and judicious course is demanded in any case it is in such an one. We have the greatest faith that a very respectable proportion of cholera cases can be *cured* or the disease *abated* if proper attention is at once paid to the initiatory stage, but the time is short and the patient should be prompt in applying for release.

TOPOGRAPHY.

The first case that presented the characteristics of cholera, was one in the family of Mr. Bucksot. From this it gradually spread, keeping in the main in the valley of Pogue Creek, in a south and southwestern direction. Several cases with as strong marked symptoms as the first, occurred at a distance from this creek, upon high ground. The date of its first appearance was July 3d; the last case was reported September 9th—the disease having a period of about two months.

The average duration of the disease in every case was five or six hours; the greatest number of deaths per day, four; total number of cases, ninety-nine; deaths, forty-four.

None of Mr. Bucksot's family had been away from home, at least out of the city, and had no visitor for nine months previous; the premises were not over-crowded, and every thing in proper condition, *except that the surface water flowed into the well.* The second family attacked were just in the opposite condition — over-crowded, filthy in person and home; food bad and scarce, etc.

The Cook Street family was in a similar bad condition, no drainage, the house placed at margin of a slight hill from which the surface water flowed down upon their lot. Here on Cook and Winston Streets was the greatest mortality. In nearly every case where the disease appeared the *drainage* was deficient, and in a large proportion filth predominated.

There is no doubt that the disease, call it by what name we will, would have been more general in its appearance and more fatal if it had not been for the efficient means used by our health officers in each case as it presented. From personal knowledge, we can testify to the indefatigable exertions of the Board of Health. The means adopted were disinfection of the premises by means of carbolic acid, chloride of lime and solution of sulphate of iron. The patients were isolated and where convalescence or death was the result, their clothes together with bed clothes, etc., were either destroyed by fire or thoroughly disinfected. A local quarantine was established about each of the infected premises and in such ways the disease was emphatically *stamped out.* It is very true that in some of the cases more efficient work could have been done had the Health officers possessed the power to enforce their regulations in a manner as they were well aware they should be; and especially

could there have been better measures taken to prevent the further spread of the disease if such power had been vested in them. Hygiene in this country is in its infancy. May the time soon come when to a proper set of Health officers shall be given adequate power for enforcing any necessary rules and regulations for the prevention of disease.

DIGITALIS, VERATRUM VIRIDE, GELSEMINUM,
TOBACCO, LOBELIA INFLATA, ACONITE,
AND HYDRICYANIC ACID:

*Their Pathological, Thereapeutical and Toxicological Effect,
and their Antidotes and Incompatibilities.*

BY S. C. WEDDINGTON, M. D., JONESBORO, IND.

Printed at the request of the Hartford County Medical Society.

The subject of my thesis is a broad one, and one to which I cannot hope to do justice. In what I shall say I have had to depend principally on the experiments and observations of others, not having had time and opportunity to make experiments for myself. My apology for attempting to write on a subject with which I am perhaps no better acquainted than is each member of the Society, is that I was requested by the Society to do so. I have found it absolutely necessary to be as brief and concise as possible.

Digitalis has been used as a medicine from remote antiquity, and its effects on the human system have been made the subject of observations or experiment by a great many physicians; but different observers have come to very different conclusions, and its exact effects and proper therapeutical uses seem yet to be undetermined. Dr. Wood tells us that it is narcotic, sedative and diuretic, and that in full portions it causes a sense of tightness or weight, with dull pain in the head, vertigo, dimness of vision and confusion of thought, and occa-

sionally ptyalism and irritation of the trachea, larynx, stomach and bowels. But its most prominent effect is a reduction of the force and frequency of the pulse. He thinks it is sedative and debilitating in all quantities. The symptoms caused by an overdose, are nausea, vomiting, stupor or delirium, cold sweat, extreme prostration, hiccoughs, convulsions and syncope, and sometimes death. I have found no record of *post mortem* appearances. Some think that the effects of digitalis in small doses are excitant or tonic. Ackermann, of Germany, says that the first effect is to render the pulse slower, but an increased effect quickens it and causes it to be intermittent. He thinks that it lessens the frequency of the pulse by its action on the extremities of the vagus nerve, and quickens it by its action on the vaso-motor nerves. Drs. Brunton and Meyer think that it causes contraction of the arterioles, and that the decrease in the action of the heart is due to increased blood pressure resulting from such contractions. But Ackermann thinks that the rate of action does not correspond with the amount of blood pressure, and concludes that the effect on the circulation is principally beyond the heart. Mywand, of France, thinks that the effects of this medicine are due to the diminution of the quantity of urea in the blood which it causes. M. Gournat thinks there is a remarkable paralellism between the modifications caused by this drug on the circulation and on the respiration. Dr. Fothergill, of Leeds, thinks that in dilatation of the heart, digitalis exerts a very beneficial tonic effect; and Dr. Taylor, of New York, thinks it very beneficial in dangerous debility of the heart from any cause.

I cannot give experiments and conclusions in full; but my conclusion from them is that digitalis acts primarily through the sympathetic or ganglionic system of nerves, and that its action on the system is excitant and tonic, when not too freely used. In small portions, it supports the vital powers, increases the tension of the blood vessels, energises the languid heart, and increase

the secretion of urine and probably other secretions, when their paucity depends on debility. But these effects follow small doses only. More largely given, it acts upon the brain and cerebro-spinal system, and if the portions be very large, paralyzes the brain and nervous system, in a measure producing sedation and prostration — such effects increasing in proportion with the quantity taken. Whether these contrary effects of small and large doses result from the action being on the ganglionic system in the one case, and on the cerebral system in the other, or whether small doses are excitant, and large ones sedative to both systems, I cannot determine; but the same peculiarity belongs to other and possibly to all medicines which act directly on the nervous system. *Digitalis*, if used for a length of time, gradually reduces the temperature of the body, I believe in all cases — due perhaps in one case to the slower rate of the circulation, and in the other case to sedation and prostration. This medicine has a cumulative effect which I would attempt to explain as follows: The effect of this drug is always long continued. When the doses are repeated too often, the system may be under the influence of one, two or a dozen doses at the same time, and although each of those doses alone would have an excitant or tonic effect, their joint action becomes the same as one large dose. I believe that whisky and other vinous stimulants may have an accumulative effect in the same way. It is probable that the apparent irritating effect of *Digitalis* on the stomach or elsewhere, is due not to sthenic irritation, but to reflex nervous action. A number of acids and alkaloids have been found in *digitalis*; the active principle seems to be or to reside in digitaline—a yellowish white resinoid substance intensely bitter, sparingly soluble in water or ether, but dissolving readily in alcohol, forming an insoluble compound with tannic acid, giving an emerald green color with concentrated muriatic acid, and being decomposed by caustic potash.

Veratrum Viride, until within the last few years, was supposed to resemble Veratrum Album in its effects upon the human system. The researches of a few physicians in late years have shown that the resemblance is not close, and have thrown much light on the medicinal effects of veratrum veride. Dr. C. Osgood first called attention to the fact that it does not generally produce catharsis, and that it exerts a powerful sedative influence over the nervous system, causing faintness, somnolency, vertigo, headache, dimness of vision and dilation of the pupils. Dr. W. C. Norwood was the first to bring it prominently before the profession as a medicinal agent. He ascribed to it many virtues; so many, that if his estimate were really correct, we would need but little else wherewith to practice medicine. M. Oulmout seems to have been one of the latest and most thorough observers of the pathological and therapeutical effects of this drug, and several others have given the public the advantage of their observations. The observations and experiments that have been published, seem to me to lead to the following conclusions: Veratria, the active principle of Veratrum Album, and of other plants, is not the active principle of Veratrum Viride, although it is found in it, and modifies its effects. Veratria is an acrid and irritating poison, exciting strong reflex action and sometimes inflammation. A small proportion of this alkaloid is found in Veratrum Viride; but associated with it is another which has been obtained in the form of a resinous extract which has a depressing effect on the nervous system, acting peculiarly on the circulating system, reducing the number of pulsations per minute very materially in a short time. I think it probable that those two principles exist together in various proportions in different plants, the one predominating in Veratrum Album and the other in Veratrum Viride. If they could be separated, and the sedative principle procured free from Veratria, I think it would be a good addition to our Materia

Medica. M. Oulmont uses a resinous extract, but whether he gets it free from veratria or not, I do not know.

Veratrum Viride speedily reduces the rate of the pulse and more slowly the temperature of the body; in full doses causing a feeling of weakness or prostration, some vertigo, often vomiting, which is apt to be long continued, and sometimes purging. It seems to me to act primarily and principally on the organic nervous system, and secondarily and less strongly on the brain and cerebro-spinal system. The excitant and irritating effects which often attend its use, are probably due to the veratria which it may contain. The effects of this medicine on the nervous system, are speedily produced, and of short duration. This and digitalis seem to meet the same indication, that is to reduce the rate of the circulation, but in a different way, and in a different condition of the system. The condition making the one appropriate, being the reverse of that requiring the other; the one being tonic, and the other atonic in its effects; the one suitable for controlling the circulation in sthenic, and the other in asthenic cases. The effects of one being prompt, and of short duration, those of the other slow and long continued.

The medical virtues of Gelseminum are said to have been discovered by accident. It was used and lauded by the Eclectics for some years before its medicinal effects were tested by the regular profession. Dr. King claims that it is a relaxant, anti-spasmodic and anodyne, and unrivalled as a febrifuge; subduing nearly any fever in a few hours, and relieving all neuralgias and nervous derangements without producing any unpleasant effect, except a feeling of languor or prostration. But he says its use is contra-indicated by congestion, and by great muscular or nervous prostration. Dr. Barthelow has investigated the physiological action of gelseminum, and he concludes that it quickly enters the circulation, and has a sedative action on the nervous system, affecting primarily the brain, secondarily the motor nerves, and in

full portions the sensory nerves also. He thinks that its effects are similar to those of conium. My conclusion is that its effects are always sedative or depressing, and that it acts primarily on the brain and cerebro-spinal system. I am not confident as to its action on the organic system of nerves, but I think it affects them but secondarily, if at all. The depression resulting continues but a few hours. Dr. King says that in order to subdue a fever permanently, and prevent its return, it is necessary generally to give two to ten grains of quinine with each portion of gelseminum. Writers think this medicine dangerous in over doses, and it is said that death has occurred from its injudicious use; but I have no account of *post mortem* appearances in such cases. Death is said generally to be caused by asphyxia from paralysis of the nerves of respiration; but it is thought that the general prostration induced may prove fatal.

Tobacco is said by Dr. Wood to be sedative, narcotic, emetic and diuretic, and very irritating to the mucus membranes. Moderately taken, it quiets restlessness, calms mental and corporeal inquietude, and produces a state of langor or repose. Large quantities cause confusion of mind, vertigo, stupor, faintness, nausea, vomiting, general debility, and even fatal prostration. Tobacco causes death by prostration; but experiments show that while the plant itself causes paralysis of the heart, its empyreumatic oil does not. Tobacco contains a number of active principles, the most important of which are nicotin and nicotiana. Nicotin is extremely acrid, and a powerful poison. It is combined in the tobacco with an acid which renders it but little volatile; hence in smoking tobacco not much nicotin is inhaled. It forms a compound with tannic acid, which is very sparingly soluble, and consequently almost inert. Nicotiana is an acrid oil having the taste and smell of tobacco smoke, and doubtless is what gives the smoke its peculiar odor. It is less acrid and less poisonous than nicotin. Vohl

and Eulenberg have concluded that the amount of nicotine imbibed in chewing and smoking tobacco, is too small to have a poisonous effect; but they ascribe the effects of smoking on the nervous system, to other principles—chiefly to pyrodine, which is found also in dandelions, willow-wood and stramonium. Dr. See, of France—who no doubt uses tobacco—concludes that in proper quantities it increases the activity of the mind, aids digestion and secretion, and, in fact, benefits the system generally; and he finds that tolerance of its use may be established more easily and speedily than that of any other strong irritant.

My conclusions, based partly on the reports of others, and partly on my own observation, are that tobacco acts primarily and directly on the brain and cerebro-spinal system of nerves: small portions having an excitant, and large portions a sedative, or rather a depressing effect. It is, to some extent, an anodyne, in either large or small portions, and in large portions powerfully relaxant and anti-spasmodic. Its extreme irritating qualities render it unfit for use by the stomach as a medicine. I think it acts but little if at all on the ganglionic system of nerves; hence its use as a medicine is limited. Its local irritant action seems not to be inflammatory, but to depend on nervous irritation and reflex action.

Lobelia was brought into notice by the celebrated Dr. Samuel Thompson, the grandfather of the Eclectic system, who thought it an excellent medicine to make people sick, and therefore esteemed it very highly. Lobelia, capsicum and steam were the three pillars of wisdom, strength and beauty which upheld the Thompsonian temple of Esculapius. In fact they were about all there was of it. Its offspring, Eclecticism, has more supports, if not better ones. According to Dr. Wood, lobelia is emetic, and occasionally cathartic, and in full portions occasions giddiness, headache, general tremor, great general relaxation and copious sweating, and in poisonous

doses extreme prostration, convulsions and death. Given to animals, it has produced inflammation of the stomach and bowels; but it is thought that the general cause of death in fatal poisoning with this article, is paralysis of the respiratory nerves. In its action on the system, it bears a close resemblance to tobacco. I am not aware that its effects have been investigated much of late years. Lobelina constitutes or contains the active principle of lobelia. It is a yellow liquid, lighter than water, with a somewhat aromatic odor, and a very acrid, durable taste. It is soluble in water, but much more so in alcohol. It is precipitated and probably rendered inert by tannic acid, nit. of silver, acetate of lead and per sulphate of iron, and is decomposed by caustic alkalies. My conclusion is that lobelia contains two active principles. The one an active poison which causes irritation and reflex nervous action, and sometimes inflammation; the other a nervous sedative, which acts primarily on the brain and cerebro-spinal system, and probably affecting secondarily the organic system, its action being always sedative or debilitating. It probably differs from tobacco in being sedative in all quantities, for all medicinal purposes, at any rate. It seems to affect the sensor and motor nerves much more strongly than the nervous centers.

Observations on [the effects of medicinal doses of aconite seems not to have been complete. It has been supposed to increase some of the secretions, and it causes a feeling of debility, and a degree of anesthesia. Dr. Fleming considers it a powerful sedative to the nervous system. Dr. See ranks it among the agents which paralyze the nervous system. In poisonous doses it causes a characteristic tingling or twitching in the lips and elsewhere; a burning heat in the œsophagus and stomach; thirst, nausea, vomiting, purging, spasms, dimness of vision, headache, diminished sensibility, paralysis, great prostration, feeble pulse and death — some-

times preceded by delirium, stupor or convulsions. On *post mortem* examination, the stomach is found inflamed, sometimes gangrenous, and the brain and lungs heavily congested. Chemists have found some three alkaloids in aconite, termed aconito, napellina and aconicella, and an acid called aconitic acid. Dr. Wood says it has been rendered probable by Geiger and Hesse that there are two active principles in aconite, one easily destructible, upon which the acrimony depends; the other less acrid, alkaline, and capable of exerting a powerful narcotic influence. It has been lately determined in France that the resinous principle termed aconitia, or aconitin, is an amorphous alkaloid, and the pure alkaloid has been obtained in a crystalline form. My conclusions from the facts given by others, are that aconite contains at least two active principles: one an acrid, irritating poison which acts locally, causing inflammation of mucus membranes; another acting directly on the brain and cerebro-spinal system of nerves, producing in medicinal doses, and probably in any portion, a depressing and anæsthetic effect, and in large doses causing paralysis of both sensor and motor nerves—the paralysis commencing at the peripheral extremities. I think it acts upon the ganglionic system secondarily. The effects of aconite are not of long duration, and the depression is seldom or never fatal—patients passing in a few hours from the most extreme prostration to health; death, when it occurs, being generally due to the inflammation set up by the acrid principle. The difference in effects noted by different observers, and at different times, is probably due to the relative amount of these two active principles in the article used.

Hydrocyanic Acid, says Dr. Bache, is one of the most deadly poisons known, proving, in many cases, almost instantly fatal. According to Christison, a grain and a half of the anhydrous acid is capable of producing death in the human subject. One or two drops of the pure

acid are sufficient to kill a vigorous dog in a few seconds. On *post mortem* examination, the venous system is found gorged with dark fluid blood. It is stated by Wibmer that in death from this poison, the blood does not coagulate. This drug has been used as a medicine probably on the supposition that so potent an article must be good for something. It seems that this poison acts directly on the brain and nervous system. It probably affects both the cerebro-spinal and the ganglionic systems simultaneously. Its action is always depressing, amounting soon to paralysis, commencing at or first affecting the nervous centers. The poison evidently enters the circulation, but death occurs too speedily for us to suppose that it acts only through the blood. It has been thought that the action of the poison must be at first stimulant, because tonic spasms generally occur; but I think this not a necessary conclusion. The depressing effects of the acid do not continue long. If recovery takes place, it may be speedy, but the congestion caused by poisonous doses in the brain and lungs, may continue and prove troublesome, or may result in inflammation and in death.

A few words will be said in regard to the thereapeutical use of these remedies, in the order in which they have been described. I think it not necessary to add much on this point, as what I have said in relation to their effects would indicate, if correct, to what diseases they would be applicable. Dr. Taylor, of New York, and Dr. Fothergill, of Leeds, are good authority for the theory that digitales is a good tonic in debility of the heart. I think it reasonable to suppose, as indicated by Dr. Taylor, that it would be beneficial in any case of debility of the organic nervous system causing derangement in the processes of circulation, assimilation and secretion. But for this purpose the dose must not be so large as to produce a sedative effect. I do not think it good policy to give this medicine to such an extent as to produce decided depression. When a depressing effect

is indicated, I think it would be better to use the direct sedatives, as they are more certain and more managable. One of the most reliable of these, when it can be used, is *veratrum viride*. But in a large proportion of cases its liability to irritate the stomach, renders it objectionable. It has been more extensively used and more highly recommended in pneumonia, than in any other disease. Its adaptability to pneumonia probably depends on the fact that in this disease the stomach is often not irritable. If it could be deprived of its *veratria*, it would probably be equally useful in all acute inflammations and synochal fevers.

From the recommendations given by some to *Gelseminum*, we might be led to conclude that this article would be as beneficial as *veritia*, without its liability to irritate, or that it might resemble in its action *veratrum viride* deprived of its *veratria*; but I doubt this being the case. I acknowledge that I have not used it much, and lack confidence in it. It seems to me that it lacks the controlling influence over the organic system that *digitalis* and *veratrum* possess. This is only an opinion however, and may not be correct. I think it worthy a trial in high grades of action where *veratrum* cannot be used.

Tobacco has been used with good effect as an anodyne and anti-spasmodic or relaxant, but its acrid irritating properties render it unfit for use by the stomach. If it could be deprived of its *nicotia*, it might probably be a good medicine. It has been used to advantage in the form of a poultice, and as an enema, and by smoking it. In its habitual use, the effects depend on the amount used, and the susceptibility of the system to its influence. When used to great excess — as it is by some — its evil effects can hardly be overestimated. When used in moderation, it does not do a great deal of harm, and may sometimes do a little good. The question may be asked to what extent it may be used with impunity, and what

amount would be excess? I would say that whenever it causes vertigo, nausea, dyspepsia, tremors, prostration, or any other of the numerous derangements it is capable of producing, it has been used to excess, though the actual quantity used should have been but one grain per day. My conclusion is that he who uses it in moderation, and occasionally treats a deserving friend to a cigar, does well; but he who abstains entirely from its use, does better, both physiologically and "pecunia-logically."

Lobelia, from its strong effect upon the motor nerves, is a good anti-spasmodic, and useful in all cases in which it is important to relax the muscles. It is highly recommended, and no doubt is highly useful in asthma. Its irritating and nauseating properties, however, interfere with its use as a relaxant. If it be true that it contains two active principles, as I have supposed, it would be quite an advantage to have them separated, so as to obtain the relaxant without the nauseating effects. Lobelia, from its slight effects on the circulation and on the organic system generally, and its nauseating properties, is not of much use in fevers. It may be used sometimes to advantage in cases in which the stomach is not irritable.

Aconite is the beauty and glory of the Homœopathic system of practice. The Homœopaths estimate the usefulness of a medicine from its ability to produce disease; and aconite in poisonous doses will probably come as near making a person sick all over and all through, as any article that could be used. Aconite seems to exert strong anodyne power in addition to the sedative effect, and would doubtless be an excellent medicine if we could get clear of the acrid properties which it contains. It is used by a great many, and with good effect, in inflammatory fever and local inflammations; and I think when the stomach is not too irritable to bear it, that it may be very useful in such cases, meeting as it does two import-

ant indications. I have used it with good effect, I thought, in rheumatism and in pneumonia. I think it not usually so apt to irritate the stomach as veratria.

Hydrocyanic acid has been used to some advantage to produce a local anodyne or anæsthetic effect, and it is recommended as a good palliative for cough in phthisis, and in some other cases. It is probably beneficial in any case in which cough depends on nervous irritation or hyperaesthesia. From its strong effect upon the brain, it ought to be useful in any case in which there is abnormal activity of the brain. I would think that it might be useful in mania and in tetanus, or other tonic spasms; but I do not know that it has been tried in such cases.

In regard to incompatibility, I would say that the medicines under consideration, are, therapeutically, incompatible with each other, and also with tonics and stimulants. Giving two or more of them together, unless you lessen the doses accordingly, you would produce too strong an effect; and giving them in conjunction with tonics and stimulants, you would, to a great extent, neutralize both. There is one form of incompatibility to which I wish to call attention, as it might be overlooked. I have supposed digitalis and tobacco to be excitant or tonic in small doses, and some of these other articles may have the same peculiarity; but if you give either of these articles in tonic doses in conjunction with any of the others which are sedative, or in sedative doses, you will produce the sedative or depressing effect of both. In other words, if you give digitalis in excitant doses with veratrum or gelseminum, the effect will be the same as that of a large dose of either — similar to the cumulative effect of digitalis. And the same rule appears to apply to strychnia and other nervous tonics. Dr. Bartholow tried to find a physiological antidote to gelseminum, but failed to do so. He supposed strychnia to be its physiological opposite; but when given together, the strychnia increased instead of counteracting the depressing effects

of the gelseminum. Then he tried the calabar bean as being the opposite of strychnia; but it, too, increased the depressing effect of gelseminum. When we wish the tonic effect of digitalis or tobacco, we must not combine it with one of the strong sedatives. And if we combine the nervous tonics, we must make the doses small. As to the remedial treatment of poisoning with any of these articles, two classes of medicine may be needed. For depression and prostration, stimulants such as ammonia, chlorine and alcohol, will be required; and for local inflammation in the stomach or elsewhere, should it occur, such remedies as are generally applicable in such inflammations, will be appropriate. As to chemical antidotes and incompatibilities, we have seen that tannic acid forms an insoluble compound with the alkaloids of some of our articles; at least I think it probable that it will form compounds insoluble, or nearly so, with all of them, and thereby render them inert. If that be true, the question would arise, which of the active principles are alkaloids? and does this class include the sedative principles or the active principles, or both? On this point I am needing more light; and I do not know but the same is true in regard to the profession at large. Very many and very careful experiments will be requisite in order to arrive at exact truth. Some or all of these alkaloids are decomposed by caustic alkalies, and by nitrate of silver and per salts of iron. I think the reason many have not obtained satisfactory results from the use of these sedatives, may be because they have been used in connection or conjunction with incompatibilities. It may be that many a doctor, to produce a prompt effect, has given heavy doses of opium or morphia in combination with tannic acid, and wondered why the opiate produced so little effect. I have done so myself. It is customary to use bi carb. potass in pneumonia, and some use veratrum or aconite; possibly they have been used together, and possibly the active alkaloid has been

decomposed, and the doctor has pronounced the medicine useless. Hydrocyanic acid does not owe its effects to an alkaloid, but its physiological and therapeutical incompatibilities are about the same as those of the other nervous sedatives. The congestion produced by poisonous doses of this agent, would of course require about the same treatment as congestion with prostration from any other cause. In cases of poisoning with H. acid, it is not often that the victim can be seen in time to do any good; but in case we should arrive in time, or in case we should give a patient a little too much diluted prussic acid or extract of wild cherry, the following is a good antidote, and will commonly be within reach: Add ten grains of sulphate of protoxide of iron and one drachm of tincture of chloride of iron to one fluid ounce of water; also dissolve twenty grains carbonate of potassa in a fluid ounce of water. Let the patient swallow first the carbonate and then the iron mixture. Double decomposition will form sulphate of potash and prussiate of iron in the stomach. This quantity is considered sufficient to neutralize two grains of H. acid. I hope that these hints (for much of my paper is nothing more), may awaken an interest, and lead to a more careful examination and better knowledge of a class of remedies which I believe would be very useful, if we were thoroughly acquainted with them. It is patient, careful and untiring research which leads to knowledge.

Reviews.

DICTIONARY OF ELEVATIONS AND CLIMATIC REGISTER of the United States; containing, in addition to elevations, the latitude, mean annual temperature, and the total annual rain fall of many localities; with a brief introduction on the orographic and other physical peculiarities of North America. By J. M. Toner, M.D., Washington City.

Dr. Toner is still at statistics, this seems to be his *forte*—at least his specialty—the medical profession have sadly needed, and the medical literature been sadly deficient in, such an array of points as Dr. Toner has from time to time, during the past few year supplied. It requires so much patience and toilsome labor, so great accuracy, etc., that there are few men who have the ability, and how few are those that will devote themselves to it. Dr. Toner has not only labored himself, but supplied means for the encouragement of others to follow suit with him, few, alas, in the profession are thus constituted—no man is excused, who has any sense of his duty and short comings left him, can but blush when, with means and leisure enough, he permits the moments to fly and the material go to waste, that ought to be occupied and utilized—having such an example of thrift and industry before him. We are not writing a eulogy upon Dr. Toner, but upon the principles as embodied in his example. Certainly there are more than a *score* of medical men with at least the time and the means that he commands, and with ability enough to accomplish more than they do, that ought to be incited by such workmen, and casting aside apathy, perhaps indolence, or selfishness, and place before the profession and the world some “meats, and fruits for reflection.”

The object and intent of this work is set forth in the preface:

"The work of compilation has been a labor of love, and undertaken chiefly for the purpose of placing within reach of the medical profession a record that may enable and induce professional men in different localities in the United States to observe, record, and contrast the influence of elevation, if it has any, on health and disease. Hitherto latitude and longitude have been the chief and almost the only conditions modifying climate, that have been taken into account in considering the influence of localities on health.

"Physicians and travelers have, observed in all ages and in different parts of the world, that particular diseases are much more prevalent in certain cities and countries than in others, and that diseases common in the low lands with a high temperature are almost unknown at a high elevation with a low temperature in the same latitude. These facts suggest that altitude to some extent controls the type of diseases. Of course it is necessary for the observer to keep in view the influences not only of latitude and longitude, but also of a dry humid atmosphere, and of a high or a low barometer.

As to the location of great cities.

"Although much of the population of the ancient civilization, so briefly sketched, resided on relatively high table-lands, the most important seats of government were in the lowlands. All, or nearly all, the great powers of the ancient, as well as of the modern world, manifested their greatness upon the waters, on the seashore, and on the banks of the mighty rivers.

"Of great cities containing over fifty thousand inhabitants, it may be safely asserted that there were not ten in ancient times which were not built in the immediate vicinity of navigable waters, and the number in modern times is proportionately not much greater. But the exceptions to what may be admitted to be the rule in this matter are sufficiently remarkable to deserve special notice.

"It is a remarkable fact, that though the Spaniards have overrun so large a portion of the earth, they have never become a commercial people, and perhaps this may in part account for the fact, that their largest cities are far removed from the seashore and water courses. Madrid occupies the greatest altitude of any capital in Europe, and is nearly in the center of the kingdom."

As to the peculiarities of the United State topographically:

“It must suffice our purpose for the present, to allude to the characteristics of the mountains, the elevated planes, and the rivers and lakes of the United States. Mountain ranges of great magnitude and continuity extend unbroken along the Pacific coast of both North and South America. These ranges of mountains, in passing through the narrow neck of land known as the Isthmus of Panama, which connects the two continents, rise only a moderate height. But after passing this narrow neck and attaining great width the mountains swells into a broad table land of upwards of 6,000 feet in altitude, converting the tropical lands of Guatemala and Mexico by its elevation into a temperate climate. From this high plane shoot up mountains to a much higher altitude, some of which are volcanic, and the tops of others are covered with snow; among which we may name Orizaba, Toluca, Popocatpetl. Beyond Mexico this elevated table-land is prolonged in the great chain of the Rocky mountains, nearly parallel with the Pacific ocean; and, although there are some very lofty peaks, as Mt. Elias, they do not rise so high as those of the Andes, which range from 12,000 to 19,000 feet.

“There is also a coast range of bluff and precipitious mountains running the whole length of California, rising from 7,000 to 9,000, feet interspersed with exceedingly fertile valleys lying between it and the Sierra Nevada and Rocky mountains, some of which are low, and others at considerable elevations. These mountains are cut transversely by but two streams, the Sacramento and the Klamath. In the Colorado region a portion of the Mojave Basin, “called death valley,” is estimated to be 375 feet below the level of the sea. The Sierra Nevada runs parallel with the coast range, but rises somewhat higher, rearing its crests into the regions of perpetual snow, which is reached at an altitude of about 10,000 feet. In some of the deep ravines, at an elevation of but 6,000 feet, frost appears every month of the year, owing to the cold air settling down along them, from the snow covered mountains.

“The Rocky mountains rise still higher than either the coast range or the Sierra Nevada. They attain such an elevation as to condense the moisture from the rain-

bearing currents of air, as they pass from the Pacific, which leaves the interior plateau, comprising the States and Territories of the United States lying east of the Sierra Nevada and west of the Missouri river, with little or no rain fall. To this fact is largely due the dry and treeless plains which give these sections the name of American desserts."

This is true, but the Doctor omits to mention the source of our great North West rain and snow storms. This is with out doubt due to first, the configuration of the Pacific coast, including Alaska, as that catches the atmosphere current loaded with moisture advancing North and East, and is enabled to pass over the mountain range, that in this Northern portion is as stated of lower elevations. The moisture is not precipitated upon the paific coast at this point as it is in the South, but is carried over British Columbia, and so East and tends South. From this course the region of British America and running immediately north of our border is a well wattered and fertile region, while below the comparative rainless district is found, due as stated by the great elevation of the Rocky mountain range. The following facts are of interest :

"The climate and products of these valleys are but little if at all affected by the high mountains in their vicinity. The chief factors that determine and modify climate are, latitude, altitude, distance from the seacoast, mountain ranges, and inland lakes. These are positive elements, and nearly regular in their influence.

"It is generally accepted, that as we ascend above the sea level, the temperature of the air fall at the rate of about one degree for every 300 feet of ascention. Thus 300 feet of elevation effects a change of climate equal to a geographic degree farther north.

"This table also exhibits at a glance the population of our country that are living in towns and cities. It will be observed, that the great proportion of the population of our country are in States with an average elevation below 1,100 feet above sea level.

"It will be seen by examining table No. I, that over 20 per cent. (21.92) of the whole population of the

United States is living in cities and towns of over 5,000 population. But 22 of these cities are located at elevations of 1,000 feet and over above the level of the sea, their aggregate population being 182,798.

"The Census for 1870 shows that the real and personal estates in the United States are valued at \$30,068,518,507, and of this \$13,235,618,976 is in farms at cash value, their annual products, and live stock.

"The agricultural interests therefore serve to distribute the wealth of the nation over its territory, and control to some extent its concentration in cities and commercial centres.

As to population, elevation, etc., he speaks as follows:

"In the new as in the old world, we find that nearly all the large cities are located upon the seacoast or on the lakes and navigable rivers. To give definiteness to this part of the study we have constructed the following table, based upon the actual elevation and number of inhabitants of the cities and towns in the United States with a population of over 5,000.

"The data for the elevation above sea level assigned the different cities is derived from reported surveys, the highest and lowest elevation in the majority of each having been ascertained. A line of density of population has been deduced from careful estimates of the density of the population, living within the highest and lowest areas of the cities.

We select from his tables of average, elevation the following:

Richmond, Ind., 750 feet; Indianapolis, Ind., 680; Alleghany, Pa., 760; Scranton, Pa., 740; Kansas City, Mo., 700; Columbus, O., 700; Dayton, O., 750; Manchester, N. H., 870; Atlanta, Ga., 1050; St. Paul, Minn., 800; St. Joseph, Mo., 950; Leavenworth, Kan., 800; Burlington, Iowa, 940; Lexington, Ky., 944; Salt Lake City, 4350; Newburyport, Mass., 40; Newport, R. I., 30; Norwalk, Conn., 20; Springfield, Mass., 50; Fall River, Mass., 50; Altoona, Pa., 1220; Des Moines, Iowa, 800; Council Bluffs, Iowa, 1200; Madison, Wis., 1050; Stanton, Va., 1350.

He gives the total population in cities at 8,452,315, or 21.91 per cent. of the whole population of the United States.. As a summary of the tables (of which the above is taken) he says:

“This table of 311 towns, makes it apparent at a glance that the vast majority of the denizens of our large American cities are living at an elevation of but a few hundred feet above tide water. And a summary of the table shows, that there are eighty cities situated at an elevation between one and two hundred feet, with an aggregate population of 163,676. One hundred and ninety-two at an elevation of two hundred and less than one thousand, with a population of 3,237,743, and twenty-two cities at an elevation of 1000 feet and over, having a combined population of 182,789. We are not aware that the site of a single city in the United States has been selected because of the special salubrity of the location.”

Taken altogether, it is a very interesting statistical work. That the Doctor's labors are not unappreciated at home would appear from the *Washington Star*:

“The various treatises by Dr. J. M. Toner, of this city, upon matters of Social Science, have attracted attention and have resulted in several instances in setting on foot very valuable reforms. One of the plans of an important sanitary and humanitarian nature broached by him has been that of establishing sanitariums on elevated grounds for the use of sick children in the hot season, a time of the year when the little ones are swept off by thousands by cholera infantum and like diseases in our crowded cities of low temperature. He urges with force that our entire thought should not be expended upon the mere wrecks of humanity cared for in our hospitals, but should be directed also to the myriads of young lives now sacrificed annually to disease, but who might be saved to fill careers of usefulness in the world.

And with reference to the present work the same says:

“Dr. Toner seems modestly disposed to present the data for investigation by others, rather than to give his own conclusions in regard to the effect of elevation upon different diseases, but he notes in brief terms the fact that yellow fever has perhaps never reached higher elevation in the United States than four hundred and sixty feet, and rarely above, Vicksburgh (175) and Memphis,

(262.) The same is the fact in Mexico and the West Indies. As regards pulmonary disease there appears to be a growing distrust in the curative influence of the seashore and the low and damp coast of the tropical islands so extensively patronized in the past. A table presented in the Dictionary which gives the per centage of deaths to the whole population for the three last decades, and the relative frequency of consumption to total deaths in each of the States and territories of the United States, as returned in the census of 1860 and 1870, shows that those States, as a general rule, presenting the lowest elevations and greatest area of ponds, lakes, rivers, and wet lands to their whole area have the largest number of deaths from diseases affecting the various organs. The apprehension that high elevations, because of the lessened barometric pressure, may induce hemorrhages where the lungs are weakened by disease has not proved to be well founded. From the testimony of disinterested army officers and other parties, given not to support any theory, but recorded as interesting facts observed, Dr. Toner is lead to surmise that here may be found a region in some part of New Mexico; perhaps as favorable for patients suffering from phthisis, as can be found within the boundaries of the United States."

We agree with all of this with exception that we have the best reasons for believing that notwithstanding statistics *high elevations with lessened barometric pressure often does cause hemorrhage where the lungs have been weakened by disease*. In this we *may* be mistaken, but would require more proof before we will be convinced of its falsity. That there are places in New Mexico etc., that are favorable for patients suffering from phthisis, is without doubt true, statistics and experience both corroborates this assumption.

TRANSACTIONS OF THE WISCONSIN STATE MEDICAL Society for the year 1873, with the constitution and by-laws of the Society, and a list of its members—Volume VII.

This is a neat pamphlet of 128 pages, containing some very excellent contributions. M. Waterhouse, M. D., Portage city, is President, and J. T. Rems, M. D., Appleton, Secretary and Treasurer. The annual address of the President was "on the multiplication of diseases,

and causalities from ancient to modern times." We have not the time at present to give an extended review of the transactions as they certainly deserve. We are not *very* old, and yet can well remember the picture that portrayed the ideal New York boy in the wilds of Wisconsin Territory—"A nation is born in a day."

BRITISH JOURNAL OF DENTAL SCIENCE—February 1874, Lindsey & Blackistone, Philadelphia.

This seems to be a very fair Journal of Dental Surgery and medicine. Some of the contents are as follows: Dental Materia Medica and Therapeutics, Counter-modelling, Hospital reports, with miscellaneous articles and correspondence.

CATALOGUE OF THE "LAKE FORREST ACADEMY" 1872-3.

Lake Forrest is situated "about 27 miles from Chicago, north, 150 feet above the lake."

The Academy is well supplied with Apparatus, Library, etc., and general facilities for teaching all the branches generally taught in any first class educational institute.

Valedictory address delivered at the annual commencement at the college of Physicians and Surgeons, by Prof., E. Lloyd Howard.

Editorial.

At the last meeting of the faculty of the Indiana Medical College the resignation of R. N. Todd, Prof. of Theory and Practice of Medicine, Dr. R. E. Haughton, Prof. of Anatomy, and Wm. B. Fletcher, Prof. of Physiology, and Dr. D. Clark, Prof. of Materia Medica and Therapeutics, were offered and accepted. Dr. Clark was nominated and elected by the Trustees to the chair of Theory and Practice. Nominations to fill the other vacancies were made but nothing definite *done*. More anon.

Miscellaneous.

TREATMENT OF NASCULAR NÆVI WITH GALVANIC CAUTERY.

BY B. F. DAWSON, M. D., NEW YORK.

In vol. iv., No. 3, November, 1871, of this journal, I published a paper on the "Treatment of Vascular Nævi with the Actual Cautery," and related therein several cases in which the most satisfactory results followed that method of removal, or rather destruction; and having since operated many times in like manner, I still adhere to the views therein expressed of its advantages and gratifying results.

During the last two years, however, I have had opportunities of witnessing the use of, as well as using myself, the galvanic cautery in various operations, when it is "par excellence" the best means at the command of the surgeon. Having possessed myself of an apparatus, I have used it many times for the destruction of nævi—in some of which other methods, excepting the actual cautery, had proved unsatisfactory—with unfailing success and most gratifying results.

As many surgeons still seem undecided as to the best means for removing this not uncommon congenital disease, many still adhering to the oldest and most unsatisfactory methods, I deem it not inadvisable to add my testimony in favor of a method that at least one high authority, Dr Maas, of Breslau, pronounces to be followed by the best results, and is much safer than the injection of iron or other coagulating fluid. This opinion he arrived at after having used the galvanic cautery in 112 cases with the following results: *Capillary nævus*—cured, 32; improved, 1. *Cavernous or venous nævus*—cured, 72; improved, 8; died 3. *Arterial or racemose nævus*—cured, 2; improved, 1. *Nævus combined with other tumors*—cured, 6; improved, 1; result unknown, 2.

The galvanic cautery differs from the actual cautery in the means and facility for heating the needles, while it is superior to the latter from the fact that the degree and duration of the heat is wholly under control of the operator, and consequently it admits of being used with greater care and deliberation, while the actual cautery needles, readily parting with their heat, necessitate their hurried use. These advantages, combined with the admissibility of using very fine needles, are the only advantages the galvanic can claim over the actual, for the effects of the two methods are precisely similar—destruction of the diseased parts by heat. Both methods have the advantage of allowing the destruction of nævi in parts of the body where it would be either unsafe or impossible to apply other means.

CASE I.—Sarah Hawley, fourteen months old was brought to me Feb. 21, 1874, at the Dispensary for Sick Children, with a subcutaneous venous nævus in lower portion of the upper right eyelid, and considerably disfiguring the child. The history was one of rapid growth to its present size of a large pea.

The mother stated that she had taken the child to the Eye Infirmary in this city, but that she was advised to have nothing done. On close examination I resolved to operate on the tumor, as from its very rapid growth it was evident that the whole lid would before long be involved, and its function being thus impaired, the eye itself would suffer. From the location and deep character of this nævus I could judge of no safe means of removing it excepting the galvanic cautery. Certainly it would have exposed the eye itself to injury to have attempted its removal by the potential caustics vaccination, of coagulating injections, for the reason that the effects of these methods would extend beyond the actual site of the nævus, as their action is not wholly under control; the opposite is the case in using the galvanic cautery needle, with which it is possible to destroy

slowly and cautiously, and only to the extent deemed safe in view of the consecutive inflammation.

On Feb. 24th, assisted by three of my students, I operated on the case, entering the nævus with the red-hot platinum needle at the lower border of the nævus, which was held by forceps, and thus destroying it subcutaneously by working the point of the needle cautiously to the right and left, avoiding going too deeply. The whole operation was completed within three minuetts, and the child on recovering from the chloroform was removed to its home, a wet compress being previously applied.

I saw the child again on the 27th, when a firm scab covered the site of the nævus; there was also some congestion of the conjunctivæ, but nothing very marked, and but little swelling of the lid. On the 30th I saw the case again and found the scab removed and a slight cicatrix remaining. The eye in all other respects looked healthy. When last seen, April 2d, nothing excepting a small scar showed where the nævus had been; there was no contraction of the lid, and the mother expressed herself highly pleased at the result. Certainly no better result could have been obtained by other methods of treatment.—*From the American Journal of Obstetrics and Diseases of Women and Children, May, 1874.*

MINT FOR THE SUPPRESSION OF MILK.—Dr. Dasara observes the knowledge of the antilactiferous properties of mint appears to have been possessed in very ancient times, since Dioscorides mentions the fact in his works, and subsequent writers have only confirmed his statement. Linnæus observed that cows that ate mint in their pastures, yielded a very serous milk, and Lewis affirmed that the coagulation of milk in which some leaves of mint were placed, was retarded. More recently M. Debois de Rochefort, experimenting on mint, found that fomentations of mint applied to the breast, and the infusion taken internally, were capable of suppressing

the lacteal secretion, and of preventing the usual accidents attending milk fever in puerperal women. Trousseau expressed some doubt respecting this action of mint, in his treatise on *Materia Medica*; but Dr. Pasquale Peppe, in a note on Trousseau's observation, remarks that the fresh leaves of mint placed in the axilla are commonly used in Naples to suppress the milk. Dr. Dasara determined to experiment for himself, and gives the details of a series of cases in which he tried the effects of the application of mint poultices made from the young sprigs at various periods of lactation, and the following are the conclusions at which he has arrived: 1. It is an established fact that mint has the power of suppressing the lacteal secretion; 2. The suppression of the secretion takes place at whatever period of lactation the mint is employed; 3. The effect takes place in a very short space of time, according to his experiments in from three to five days; 4. The suppressive action of mint can be localized to one breast; 5. No danger nor even any inconvenience arises either to the mother or the child, either from the use of the mint or from suppression of the secretion.—*Revista Teorica Practica*.

APPARENT DEATH—RECOGNIZED BY FARADIZATION.—Prof. Rosenthal, of Vienna, has recorded an interesting case of trance detected by faradization in a hysterical woman whose death had already been certified by a country practitioner. It had been found that a looking-glass held to the mouth of the woman did not show any moisture, and that melted sealing-wax dropped on the skin caused no reflex movements. Rosenthal, who was accidentally present, found the skin pale and cold, the pupils contracted and insensible to light, the upper and lower extremities relaxed, the heart's impulse and the radial pulse imperceptible. Auscultation, however, showed a feeble, dull, and intermittent sound in the cardiac region. No respiratory murmurs were audible. All the muscles of the face and the extremities respond-

ed well to the faradic current. Although the patient had been apparently dead for thirty-two hours, he thereupon informed the relations that she was only in a trance, and recommended that attempts at resuscitation should be perseveringly followed. On the following day he received a telegram saying that the woman awoke spontaneously twelve hours after his visit, and gradually recovered her speech and movements. Four months afterwards the patient called upon him, and informed him that she knew nothing of the commencement of the attack of lethargy in which she had been; that she had afterwards heard the people about her talk of her death, but had been utterly unable to give the slightest sign of life. Two years afterward she was still alive and tolerably well.—*British Medical Journal*.

POISONOUS PLATING FLUID.—Dr. R. C. Kedize, as a Member of the State Board of Health, writes us “that a person has been vending in this city a dangerous plating fluid labelled French Nickle Plating. The only article of the kind for sale in the United States, and the best in the world.” This article consists principally of the nitrate of copper, nickle, and mercury. It gives an immediate and beautiful coating to brass and copper wares and to silver surfaces, but the coating is mercury and not nickle. Such coating while beautiful when first applied, will speedily tarnish, hence the article is worthless, and the person who pays \$1 for a bottle is badly cheated. But, worse than this, the coating is poisonous, and if applied to spoons or other table ware may produce great injury to the health. Beware of these cheap plating fluids. They are all dear, deceptive, and most of them dangerous.

Dr Hays

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ABDOMINAL SECTION IN CERTAIN CASES OF INTESTINAL OBSTRUCTION.

BY WM. H. BELL, M. D., OF LOGANSPORT.

Read before the Cass County Medical Society.

In the few remarks offered to-day to the Society no effort is made or intended to embrace the full scope of the etiology and pathology of intestinal obstruction. It is merely our purpose to draw your attention to some of the advantages that abdominal section offers in certain cases of obstinate intestinal obstruction, without attempting any thing like a systematic discourse on the subject, even for the details of the operation for abdominal section. I refer my hearers to Bryant, Allingham or Gross.

The advantages resulting from abdominal section will vary according to the nature of the obstructing cause, its situation and its duration. The least good results when invagination exists, the different folds of whose walls have been agglutinated by a plastic inflammatory

exudation, and the procedure attains its highest aims when a constricting band binds down the intestine, interfering with the transit of its contents towards the rectum. It will be readily conceived then that a most important point, as touching the advisability of resorting to abdominal section, with a view of restoring the intestine to its normal condition, without division of its walls, will be a proper knowledge of the relative frequency of the different varieties of obstructing cause, and to this might be added an intimate knowledge of its immediate effects.

Dr. Brinton, who collected and tabulated six hundred cases of the disease, found that in this number forty-three per cent. were from intussusception, thirty-one per cent. were from constricting bands, seventeen per cent. from stricture, eight from torsion, either upon its own axis, or upon an axis formed by the mesentery, three per cent. the intussusception of the intestine by an opening in the mesentery, omentum or mesocolon, one per cent. each, concretions within the intestine, and a tumor; as, for instance, a cancerous mass in the omentum, or an enlarged ovary, or the gravid uterus. Other writers agree in the main with Dr. Brinton, yet making a somewhat more minute classification, allusion to which cannot be made here.

Equal in importance to a perfect knowledge of the relative frequency of the varieties of obstructed intestine, is the understanding of the means by which an early and correct diagnosis may be arrived at. I shall merely mention some of the chief distinguishing features of each, without any attempt to describe symptoms in detail. Intussusception, or invaginated bowel, which, according to Brinton, occurs most frequently, being forty-three per cent., is characterized by its sudden onset, by its severe but wandering pain, observed as often in some distant part of the abdomen as at the seat of the disease, by the pain passing away when light pres-

sure is made over the invaginated gut, and above all by the existence at first of slight, loose, alvine discharges, which soon changing their character, become mucous and then bloody. We observe likewise, as in the other varieties of obstruction, the peculiar phases of facial expression, being pale and anxious, then leaden, dull and sunken, as fecal vomiting imparts its horrid characters to this loathsome disease.

Mr. Gay, in the transactions of the Medical Society of London, 1861-62, gives an analysis of seventy-four cases of intussusception: "In thirty-three the small intestine was the seat of trouble; in thirty-three the small intestine, with or without the cæcum or colon, was invaginated into the colon; in eight the large intestine was alone involved."

When a band is the cause of the difficulty—and you remember Brinton found it in thirty-one per cent., the onset, as in intussusception, is quite sudden, but the pain is fixed in one place, and that is where the band exists—and never really ceases, being greater and then less, as pristalsis goes and comes—a distinct tumor can be felt at the constricted point, and also the writhing of the bowel can sometimes be felt, twisting itself along till it reaches the band, when it stops. Fecal vomiting comes on earlier than in any other variety of obstruction, so do exhaustion and collapse, as evidenced by the quick, weak pulse, the pale, ensanguined and pinched look, the failing voice, and the wandering mind.

The symptoms usually display themselves less suddenly in the other forms of obstruction; should it be impacted gall stones, there will have been jaundice observed before the attack; or gall stones may have been found in the stools.

When the bowel is twisted upon itself, or where it is caught in a rent in the omentum, or in the internal opening of the inguinal canal, the symptoms will sometimes resemble invagination, but will come on much more

slowly, somewhat resembling strangulated hernia, and days will pass before very grave symptoms arise. The same observations hold good when the trouble is caused by a tumor, let it be cancerous or otherwise. A tumor likewise has its own history, which will always assist in a diagnosis. Notwithstanding, however, the clear lines of demarcation that have been drawn by authors between the different varieties of the disease under consideration, cases will occur where a clear diagnosis will be attended with very great difficulty, and this fact suggests the necessity for the closest and most attentive examination in every case. A solution of the mystery can never be arrived at with merely a passing and superficial investigation. It is not enough to look at the tongue, smell the breath, and gently pass the hand over the surface of the abdomen; every thread that may untie the knotty skein must be seized and carefully unraveled. The different functional and physical signs must be most carefully collated, and a due estimate made of their importance, as touching the case on hand, especially as regards what may be its surgical requirements, carefully remembering that the knife holds up a prospect of relief when the draught and potion signally fail in the performance of good.

In elucidating the physical points of the case too great care cannot be bestowed, upon an examination of the rectum by the finger, or a bougie, or a tube, as by this means some important light may be thrown upon the subject, the existence of a tumor discovered, or one of those annular strictures of the rectum made out, first described by Mr. Henry Smith, in his Lettsomian lecture in 1865. Chloroform will be a valuable assistant in these investigations, doing away as it does with all pain, and enabling the physician to use more force and precision in his inquiry.

Now, supposing a course of medication, however well ordered, shows a strong probability of proving abortive

in a given case of intestinal obstruction, what are the advantages that will likely accrue from abdominal section? They may be stated as fourfold:

1st. The chief advantage to be derived will be the total removal of the diseased process, by the restoration to its normal position and state of the obstructed canal, and this performed without opening its walls.

2d. "In cases of intramural occlusion, it enables the operator to discover its locality, and after having removed the obstacle, he can sew up the bowel and return it into the abdominal cavity, or establish an artificial anus, as circumstances require." (Whitall.)

3d. "Should the operator not be able to find the obstruction, it will enable him to establish an artificial anus, trusting that at some not distant future time the proper intestinal passage may re-open, and the artificial anus then close." (Whitall.)

4th. When the obstruction cannot be removed, it enables the surgeon to establish a permanent artificial anus.

It is, as before stated, when a band causes the stricture, or a loop of intestine has passed through a rent in the omentum, or when torsion bound down with adhesions exists, that most benefit may be expected from operative procedure.

When should abdominal section be performed? The peculiarities of each case, the suddenness and violence of the attack, the seat of stricture, the nature of the constricting body, the amount of gaseous and liquid contents above the stricture, and the amount and intensity of inflammatory action present, and the length to which it has proceeded, will all be data by which the above question can be answered. It is peritoneal inflammation, or its sequel septicæmia, that destroys the patient in nearly all these cases, and this is precisely what we want to prevent. Therefore, in any acute case, when a well ordered general treatment has been tried and

failed, and the disease seems to be progressing to a fatal termination, no time should be lost, but abdominal section should be promptly resorted to.

In intussusception the invaginated bowel soon becomes congested and swollen, plastic deposit is thrown out, gluing the mucous surface of the telescoped portion to the mucous surface of the bowel within which it is placed. When this has come to pass the less cutting the surgeon does the better, for no manipulation can now mend matters in the way of restoring the bowel, and there being such an immense tract involved in the diseased action, not much hope can be indulged in from the establishment of artificial anus, as peritoneal inflammation and its sequelæ usually soon carry the patient off.

The same remarks as to early interference hold when a band is binding down the bowel. It should be removed before it has caused the death of the parts covered by it.

Within the last six or eight years, the laying open of the peritoneal cavity has been shorn of many of its terrors. At one time a surgeon who, if necessary, would not hesitate to remove the superior maxilla, in cases of tumor involving its structure, or whose surgical skill removed with success the trunk of the inferior dental nerve, together with that of the second branch of the fifth pair of nerves, beyond Meckel's ganglion, for severe facial neuralgia, nevertheless regarded with fear and dislike any maneuver that involved the peritoneal cavity. A host of reasons and objections were advanced why it should not be incroached upon by the knife; and so conclusive did their reasoning appear, that brave indeed was the man who, disregarding the warning, cut into the forbidden cavity. But it was done. Dr. Peaslee did it; "and when he advocated the operation before the New York Academy of Medicine, in 1864, there was not another surgeon in the city to defend the proceeding." Trousseau likewise opened the cavity a number

of times with success, he remarked before his experience extended in this direction. - "When we see surgeons (to search for and detach an ovary) making large openings into the abdomen, with morbidly thickened walls, and the seat of great morbid changes, without taking into account the temporary contact of air with the peritonæum, and the horrible mutilations necessary for attaining the object desired, there need not be any alarm at the proposal to make a large incision into the linea alba so as to enable the hand to be introduced into the abdomen, there to seek for and destroy the obstacle, or to drag forward the particular intestinal convolution in which it is desirable to form an artificial anus. It appears to me, therefore, that the undeniable success which has attended ovariectomy, would justify, for the cure of internal strangulation, recourse being had to an operation which, though perhaps more calculated to excite alarm, is surer, more rational, and less dangerous than ovariectomy."

That opening the cavity of the peritonæum by a large incision is a proceeding fraught with much danger, none will gainsay; yet when skillfully performed, and carefully watched afterwards, the percentage of recoveries is as great as in any operation of like proportions in other regions. One reason why so much discredit has been brought upon it is because it has been so often resorted to when no hope of relief could accrue from any proceeding, and the death resulting has been put down to the operation, and not to the disease, where it properly belonged.

Here is a case in point. Says Mr. Thomas Holmes, in the case of a child: "I cut down upon the obstruction on the chance that it might prove to be a band, external to the gut; and so it proved to be, but the subjacent intestine was so rotten that it gave way at once, when I found my finger-nail underneath the band."

No proceeding could help such a case.

An influence that has great weight, especially with the junior physician, inducing him to postpone active measures, against his better judgment, until too late, is the popular prejudice against any heroic resort, should it be unsuccessful, it matters not how judicious, and in accordance with the requirements of the case, the proceeding may have been. Unfortunately this prejudice is sometimes winked at by members of the healing art. While this is much to be deplored, it is a relief to reflect that while the remark applies to those whose practice borders on the irregular, we ourselves are comparatively free from it. Now, it is one of the chief functions of a society like our own, to strike at the foundation of this very feeling, by encouraging and promoting such a oneness of sentiment among its members, that the laity, observing the harmony in medical councils, may be led to put more trust in, and treat with less suspicion, any of its acts. If this unfortunate popular prejudice were only removed, how many lives might be saved that are now lost, because the surgeon does not dare to risk his reputation, in any effort of an extreme nature that may be doubtful in its results, and if so may expose him to criticism, if not censure.

Supposing, then, we are called in to treat a case of this truly grave disease, and that notwithstanding our free use of opium, those terrible peristaltic pains cause our patient to toss about in an agony of distress; that our cupping or leeching, and warm cataplasms, prove no impediment to the gradually distending bowels; that our iced champagne, or bismuth, or carbonic acid, avail nothing in relieving the feculent vomiting, itself a source of distress hardly to be estimated; that our copious injections, pushed to utmost distension of bowel, return uncolored; that in spite of all our remedial attempts, long weary days of pain, and nights of sleepless agony, waste away the strength of the patient, paling his face and dampening his brow with the slow gathering dews of

death;—supposing, I repeat, we see this course of events drawing slowly but surely on, does not the responsibility placed in us as physicians in whose hands the public health is intrusted, demand that any legitimate effort, however extreme, that may hold out one more chance for the afflicted, be fairly tried, even though a public should censure for what it cannot rightly judge?

This, gentlemen, on two occasions has been my position. Twice I have felt that abdominal section was the only hope; and twice, partly from differing views of councils, and partly from fear of public censure in case of ill success, no section was made, and my patient passed, I hope, from earth to heaven.

As to the performance of the operation, he will be most frequently right, and will have least subsequent trouble, who makes his incision below the umbilicus in the median line, down towards the pubes. An opening four inches in length will admit the fingers, and permit a digital examination. An incision ten inches long will admit the hand, and open the whole abdomen to a free inspection. In searching for a band, the hand should first be closely directed to the region round the umbilicus, where it will be most likely to meet with it, should it exist. When discovered the surgeon should insert his finger beneath it, and remove it or divide it with his finger-nail. Should he have difficulty in finding the band, he will find the intestine empty and contracted below the stricture; following this up, he will be guided to the seat of disease.

In cases of intramural obstruction, the operator will now be enabled to draw out the bowel, remove the offending body, carefully sew up the wound, and return the intestine; or finding this impracticable, establish an artificial anus above the stricture.

In my own practice I have had three cases of obstructed bowel; two died, and the last recovered. The first case happened in 1864, at Dayton. The child was six

years old; intussusception was the cause; she died on the seventh day. In this case the invaginated bowel could be recognized like a piece of sausage beneath the abdominal walls. This child had also the characteristic tenesmus and sanguino-mucous discharges.

The next case was in 1869, in West Logan. The cause seemed to be a band. The child died on the thirteenth day; bowels enormously distended; fecal vomiting came on during the third day.

The last case was in April, 1873. A tumor showed itself in the right inguinal region, and actually pointed as an abscess does before discharging; fecal vomiting began on the fifth day; pain intense in spite of opium. On the seventh day matters were worse in every respect; the tenesmus was terrible, but all that was passed was a little bloody mucous. Prolapsus ani now showed itself to add to the patient's suffering; the vital powers could not long resist such agony; death seemed the only relief. At my visit in the afternoon, I made a careful incision over the top of the tumor, about two inches and a half in length. Almost before I was prepared for it, about four ounces of horribly fetid water spouted out, and in an hour a free fecal discharge. The woman made a quick recovery; no vomiting occurred after the incision was made, and she now passes her stools through the artificial opening.

I thank you, gentlemen, for your attention.

A CASE OF PUERPERAL ECLAMPSIA.

BY J. N. SCHELL, M. D., NEW LANCASTER, IND.

I was called February 17, 1873, to attend Mrs. E. H., ætat 20 years; in first confinement. Found her in good spirits, and the os uteri dilated to about the size of a silver half dollar—soft and moist. Labor progressed

finely, and she was delivered of a fine large girl in about five hours from the time I first saw her. Placenta was expelled promptly, with but little hemorrhage. Uterus did not contract down firmly, but there was no appearance of hemorrhage, external and internal. Patient complained of what she called a "curious headache," but attributed it to loss of sleep.

About two hours after delivery she had a convulsion, followed in about fifteen minutes by another. Upon examination I found the uterus still slightly relaxed. Removed a few small coagula of blood from os and vagina. Applied cold to vulva, and administered fl. ext. ergot \mathfrak{z} j every fifteen minutes, and chloroform by inhalation.

In forty minutes had another convulsion. Continued the chloroform and ergot until Dr. Sigler, of Elwood, arrived, (Dr. S. having been called as council). Dr. S. made a rigid examination of the patient, but could find no cause for the trouble, except the reflex irritation of the spinal cord, caused by the presence of the small coagula against and in the os uteri. Dr. S. grasped the uterus externally, causing it to contract down firmly, while I removed two or three coagula from the vagina about the size of corn grains.

Another convulsion followed in about thirty-five minutes. Attributing the convulsions to reflex nervous excitement, we ordered for her \mathfrak{R} brom. potass. gr. 30, ip. et opii. gr. 20, ipecac. gr. 12; to be divided into six powders, one every three hours. Fl. ex. ergot \mathfrak{z} ss, every half hour until uterus was firmly contracted. Patient was also to have chloroform in half drachm doses, if any symptoms of convulsions returned.

Saw patient on morning of 18th; had rested well all night; no return of eclampsia; skin, cool and moist; pulse, ninety. Ordered for her sulph. magnesia \mathfrak{z} j, and light, unstimulating diet.

19th. Patient still progressing; bowels moved yester-

day; no return of convulsion; left patient in hands of a good nurse; recovered without further trouble.

I will say, in conclusion, that there was no plethora; bowels regular up to time of delivery; urine normal in quantity and composition. No appreciable cause except reflex irritation of cord from those few small clots of blood, appearing as a very insignificant source of so serious a malady. Patient made a good recovery in the usual time.

THE CRAWFORDSVILLE MINERAL SPRINGS.

Before the Montgomery County Medical Society.

ESSAY READ BY W. L. JOHNSON, M. D.

My apology for writing with reference to the medical qualities of mineral waters is that many physicians deny any virtues to such waters. Some members of our own society have expressed or implied such opinions. Such assertions I have seen promulgated by those high in medical authority. They attribute all the benefits derived by invalids from mineral springs to the exercise, change of air, diet and general modes of living attendant upon a visit to them.

In support of these opinions there is an anecdote told of a certain spring in some elevated region in England, which had gained some notoriety for its health-giving qualities, and had become quite a resort for invalids. The water of this spring, upon analysis, proved to be as free from all mineral ingredients as water issuing from the earth is ever found to be, so nearly so, indeed, that druggists might use it in compounding their medicines.

This illustrates the efficacy of moral and physical influences on both mental and bodily ailments. It goes to prove also that medicine is not always necessary to the recovery of health. But if you go farther and say

such instances prove that all praise is due only to the accessories furnished at the watering places, and none to the water itself, a satisfactory answer is furnished in the constitution of the waters. The substances contained in them are among our tried remedies. Another answer in respect to our springs is that they have gained the most of their reputation from our own citizens, up to the present time, who have used the water with little if any change in diet or manner of living, some not even having the benefit of the walk to and from the springs, but having the water carried to them.

The water of these springs has not, to my knowledge, ever been subjected to a strict quantitative analysis, but theoretically I think I can state its constituents with enough accuracy to be a sufficient guide by which a physician could give advice as to its use by his patients. The sulphur and iron and carbonic acid which we know the water contains, would form sulphuret of iron and carbonate of iron. These are the chalybeate salts.

The cathartic salts are sulphates and carbonates of magnesia, we know, and perhaps of soda and potassa. Some think there is a small quantity of sulphureted hydrogen contained in each spring. There is the list: Carbonate of iron, sulphuret of iron, carbonate of magnesia, sulphate of magnesia, and perhaps the carbonates and sulphates of soda and potassa, and sulphide of hydrogen.

The proportion of the cathartic salts contained in solution to the water is very small indeed, we are all compelled to admit, but the fact that the water is efficacious as a laxative has been proved so often by actual trial that we dare not doubt it. A considerable quantity may be imbibed after a full meal with little or no effect as a cathartic, but if, say half a dozen tumblers full of the water be swallowed before breaking the fast in the morning, it will be pretty sure to move the bowels gently but thoroughly, and the same effect is obtained by a pretty liberal use of the water throughout the day. The effect

is never debilitating nor drastic. The weakest patient and most delicate female may use it without danger from exhaustion. As a laxative this water is useful in dyspepsia, in functional disorders of the liver, in habitual constipation and all those complaints which require a gentle laxative and alterative treatment.

I have heretofore expressed an opinion that the two springs differed in their constituents. I think the lower spring is much richer in the cathartic salts, and the upper is richer in iron; and I still hold that opinion, although others think the amount of iron is about the same in each, but that the upper spring is weaker in amount of laxative salts.

The juxtaposition of these different and differing springs makes them happily applicable to the treatment of many cases of debility by having the laxative water used in the morning, as before recommended, and getting the tonic effect by the continuous use of the chalybeate water throughout the day.

The cases benefited by the use of water containing iron are convalescents from whatever complaint, the subjects of intermittent fever of long standing, persons who have become feeble from loss of blood or wasting discharges; in a word, the anæmic, by whatever cause rendered so. These springs increase the appetite, improve the digestion, and invigorate the system. If this is not the effect experienced after a short trial, it may be inferred that they are not exerting a beneficial influence. The invalid should feel himself growing stronger, more active, more buoyant in spirits; and if, on the contrary, he is feverish, dull, has a headache and a sense of discomfort after using the water, he may be assured that it is not adapted to his case.

Proceedings of Societies.

REPORT OF THE ANNUAL MEETING OF THE FOUNTAIN AND WARREN COUNTY MEDICAL SOCIETY APRIL 9, 1874.

The Society met pursuant to notice, at Veedersburgh, and was called to order by the Secretary at 9 A. M.

Neither the President nor the Vice-President being present, on motion Dr. C. D. Watson took the chair as President pro tem.

A call of the roll showed that fourteen members were present.

The minutes of the previous meeting were read and adopted.

On motion of Dr. S. J. Weldon the By-Laws were suspended so far as related to the order of business, and then on motion of the same member duly seconded the election of officers for the ensuing year was made the special order of the day to be acted upon immediately upon the resumption of business after dinner. The committee upon the proposal to incorporate the Society reported progress and asked for further time, which was granted. The names of candidates for membership were presented.

None of the board of censors being present, on motion the President appointed the following members to act temporarily. Drs. T. F. Leech, O. Aborn and G. Rowland.

The revised constitution and By-Laws were now taken up for action, and after being read were put to vote, and adopted unanimously.

The Secretary presented his Semi-Annual Financial report, which on motion was allowed and ordered to be placed on file. The Secretary reported that Dr. J. H.

O'Rear had withdrawn his name from the roll, and had removed to a county beyond the limits embraced by the Society.

The Secretary announced that one of the members, Dr. S. S. McElwee of Newtown had died since the last meeting of the Society.

On motion the President appointed the following gentlemen as a committee to prepare and report appropriate resolutions upon the death of our late associate: Dr. Hays, Dr. Ripple and Dr. Quinn.

The Board of Censors now made their report upon the applications of candidates and recommended that the following gentlemen be admitted to membership: Dr. Adarnson, Dr. G. Richardson, Dr. George C. Hayes, and Dr. Louis P. Armstrong.

The application of one candidate was continued on account of absence, and one was rejected without prejudice to his renewal of application at some future time.

The Committee appointed to prepare memorial resolutions upon the death of Dr. McElwee, now returned and reported the following resolutions and obituary notice:

F. & W. M. S.

WHEREAS, Since the last meeting of this Society our respective Friend and Brother, Dr. S. S. McElwee of Newtown, has been removed from among us in the very prime of his manhood and usefulness.

Be it therefore *Resolved*, That this Society hereby express its sorrow and regret, at the mournful event and tender to the widow and family our sympathy and condolence upon the bereavement they have sustained.

On motion the Society now adjourned for dinner.

AFTERNOON SESSION.

The election of officers for the ensuing year being next in order, nominations were made for the offices and the election was gone into, which resulted in the election

of the following persons: For President—Dr. William Colrert, of Stone Bluff; For Vice-President—Dr. T. F. Leech, of West Lebanon; For Secretary—Dr. L. G. Weldon, of Covington; For Censors—Dr. G. Rowland, of Veedersburgh, Dr. O. Abron, of Marshfield and Dr. M. T. Case, of Attica.

On motion duly seconded that the President now appoint delegates to the Annual meeting of the American Medical Association, and representatives to the annual meeting of the Indiana State Medical Society, on the basis of one delegate for every ten members, and one representative for every five members, and one for each fraction over five.

The Secretary reported the number of members in good standing to be forty-two, thus showing the Society to be entitled to send four delegates and nine representatives.

The President made the following announcements:

For delegates to the American Medical Association—Dr. Juston Ross, of Williamsport; Dr. E. T. Spottswood, of Perrysville; Dr. E. K. Kellenberger, of Attica and Dr. George S. Jones, of Covington.

For Representatives to the Indiana State Medical Society—Dr. A. G. Porter, of Lebanon, Boone Co.; Dr. Chas. D. Watson of Covington; Dr. Orin Aborn, of Marshfield; Dr. Thos. B. Campbell, of West Lebanon; Dr. Sam'l J. Weldon, of Covington; Dr. George Rowland, of Veedersburgh; Dr. A. G. Richardson, of Stone Bluff; Dr. John S. Ripple, of Newtown; Dr. Geo. C. Hayes, of Hillsborough.

Dr. T. F. Leech read a paper upon puerperal peritonitis and deposited it afterwards with the Secretary.

Dr. O. Abron read a paper upon Cerebro-Spinal Meningitis, recommending quinine as the most reliable remedy. This paper elicited a lively discussion which was participated in by most of the members present.

Dr. S. J. Weldon presented the following as an amendment to the Constitution :

“No member of this Society shall refuse to meet in consultation any other member thereof, from any personal dislike, feud, quarrel or unfriendly feeling either to the attending physician or to the sick person, as it is unprofessional and improper for a physician to permit his feelings or his prejudices to interfere with his duties to his professional brethren or to the public. Any infraction of this article shall subject the offender to be disciplined by the Society in accordance with the provision of Article VII, Section 1, of the revised Constitutions.

This amendment under the rule was laid over until the next meeting of the society.

Dr. John S. Ripple, introduced Mr.———his student, who was welcomed by the members. Article II of the Constitution was read to him, and his name entered by the Secretary upon the students' list entitling him to admittance to all the meetings of the Society, without participation in the proceedings.

A case of chronic abscess with caries of some of the metatarsal bones of the foot, in a boy of fourteen, with Talipes, was submitted for the inspection and opinion of the Society. After examining the case, the members concurred in the opinion that amputation was called for, partial or complete as might be indicated by exploratory incisions.

In consequence of an announcement made by the Secretary, that a Medical Society had been organized at Alamo, in Montgomery County, a committee of three was appointed to investigate the matter, and report at the next meeting all the circumstances as relating to that Society, so that this Society may know whether the said Union Society ought to be recognized as being within the pale of the regular profession, and as a consequence whether its members are entitled to the privilege of consultation, and also why its members have not united with their County Medical Societies instead of forming a separate local organization.

On motion duly seconded it was resolved that the next meeting of this Society be held at Attica on the second Thursday in June next at 10 o'clock A. M., and that every member be invited to bring the ladies of his family, to form a social party and partake of a dinner together; thus forming a basis for future agreeable social intercourse, and that Drs. J. T. Rice and E. K. Kellenberger of Attica be constituted a committee to procure a parlor at such hotel as they may select, for the exclusive use of the members and their ladies upon that occasion.

On motion, a vote of thanks was given to Franklin Dice, Esq., for the use of his office upon this occasion.

The Society adjourned at 5 P. M.

C. B. WATSON, M. D., *President pro tem.*

SAMUEL J. WELDON, M. D., *Secretary.*

PROCEEDINGS OF THE MONTGOMERY COUNTY MEDICAL SOCIETY.

The Society met at Crawfordsville, June 9, 1874, with the President, Dr. McClelland, in the chair.

The following members were present: Drs. McClelland, Hagsett, Purviance, Hutchings, Brown, Johnson, Hipes, Henry, Griffith, Keeney, Armstrong and Sloan; and visitors, Drs. McMurray, Cowan and W. D. McClelland.

A paper was read on the mineral springs of Crawfordsville by Dr. Johnson, and was ordered put on file and published. Then followed a report of the late epidemic of scarlet rash by Dr. McMurray, and discussions by Drs. Hagsett, Griffith, Cowan and others.

The eruptive fever was reported by Dr. McMurray, as attacking persons who had heretofore experienced both scarletina and rubeola, and the eruption resembled a

mixture of both rubeola and scarletina. The catarrhal symptoms were those of rubeola, and general cases of rubeola seemed to follow in members of the same family afflicted with rash, without any other apparent cause of contagion.

Dr. Hagsett reported cases of this eruptive fever, complicated with both erysipelas and circumscribed pneumonitis. Dr. Griffith reported cases similar to those of Dr. Hagsett.

These were the reports of physicians from the country. The experience of the physicians of Crawfordsville was that this eruptive fever resembled scarletina, both in eruption and other symptoms, and was often followed by rheumatic symptoms, sometimes slight, sometimes severe; although a case was reported by Dr. Cowan, similar to those of Drs. Hagsett and Griffith. In the discussion of this subject every member gave some suggestion or opinion.

Dr. Hutchings reported a surgical case, treated by him assisted by Dr. McClelland, the metatarsus dislocated upon the tarsus, with a fracture

An amendment was unanimously adopted to the constitution. Then followed the inaugural address of the President.

The erysipelatous inflammation of the hand and fingers, commonly called felon or whitlow and catarrh, was discussed by Drs. McClelland, Sloan, Purviance, Griffith and others. It was the opinion of Dr. McClelland that many cases had proved fatal in persons of advanced age, because of a want of free incisions.

Promiscuous questions and opinions were volunteered on various subjects by several members in a brief and pointed manner.

It was the opinion of Drs. Henry and Griffith that this society should meet once a month, and a resolution was adopted to that effect.

It was resolved to report this meeting to the Indiana Journal of Medicine.

The President appointed Dr. Hagsett to read an essay at the next meeting.

By consent, it was decided that each member should have a short paper or report at the next meeting.

Adjourned to meet the second Tuesday in July, 1874.

J. S. McCLELLAND, *President.*

W. L. JOHNSON, *Secretary.*

WARRICK COUNTY MEDICAL ASSOCIATION.

According to previous notice, the regular practitioners of medicine met at the Court House at 10 o'clock A. M., for the purpose of organizing a Medical Association.

On motion of Dr. Scales, Dr. W. L. Barker was chosen as chairman, and stated the object of the meeting in an eloquent little speech well adapted to the occasion.

On motion of Dr. Bennett, Dr. W. B. Scales was chosen Secretary.

After speeches from Drs. Spencer, Dailey, Tyner, Temple, and some others of the profession, relative to the importance of an organization in Warrick county of this character, it was moved that the chairman appoint a Committee on Permanent Organization, and the following gentlemen were appointed to-wit: Drs. Spencer, Tyner, Ballenger, Bennett, McCoy, Temple, Evans, Keegan, Camp and Aust, and to report their proceedings at 1 o'clock P. M. The meeting then adjourned to meet at 1 o'clock P. M.

At the time specified, the chairman called the house to order. The Committee on Permanent Organization were called on and reported that they had selected the Constitution and By-Laws of the American Medical Association to govern the organization; and, on motion, they were unanimously adopted by the meeting.

Then the following gentlemen were put in nomination for permanent officers, to-wit: Dr. W. L. Barker, President; Dr. C. J. Keegan, Vice President; Dr. W. B. Scales, Secretary; Dr. Orlando Ballinger, Treasurer; and were unanimously elected. Dr. Barker, on taking his seat as permanent President, made a brief speech, thanking the Association for the honor, etc.

On motion, the Constitution and By-Laws were read by section and commented on by the profession, and adopted as a whole as read.

The Association will hold their first regular meeting in Boonville (the place selected to hold all meetings,) on the first Tuesday in June, 1874, at 10 o'clock A. M.

On motion of Dr. Keegan, the President appoint five censors against the regular meeting in June, so that they may be ready for duty on that day.

On motion of Dr. Evans, the President appoint a committee of three to arrange a programme on exercises for the next meeting.

Drs. Keegan, Tyner and Evans were appointed by the President on Essays for the next meeting.

On motion of Dr. Wilson, the proceedings of this meeting be published in the Indiana Journal of Medicine, and in the Boonville papers.

On motion, the President appointed Dr. Scales, Ballinger and Evans as a committee to arrange a price list against the next meeting.

Every town or village in the county was represented by one or more members. The Association will be known as the Warrick County Medical Association.

On motion, the Association adjourned to meet as stated above.

W. L. BARKER, *President.*

W. B. SCALES, *Secretary.*

MICHIGAN STATE BOARD OF HEALTH.

The first annual meeting of the State Board of Health was held in Lansing, at the office of the Secretary of State, April 14 and 15. The following members were present: Dr. H. O. Hitchcock of Kalamazoo, Dr. Z. E. Bliss of Grand Rapids, Dr. H. F. Lester of Detroit, Rev. C. H. Brigham of Ann Arbor, Dr. R. C. Kedzie of the Agricultural College, and Dr. H. B. Baker, of Lansing, Secretary.

The question of the resuscitation of drowned people was discussed and referred to the Committee on Accidents, who were instructed to make a report on this subject at the next meeting.

Secretary Baker made a detailed report showing the property purchased and issued by the Board, and he also gave a list of articles and books which have been presented to the museum and library of the Board.

The total expenses of the Board from August, 1873, up to this date, in excess of the salary of the Secretary, were shown to be as follows:

| | |
|---|---------|
| Chemical analyses..... | \$20 00 |
| Engraving and drawing..... | 53 34 |
| Expenses of members attending meetings..... | 83 30 |
| Other official expenses..... | 45 36 |
| Instruments and books..... | 36 75 |
| Paper, stationery, etc | 149 72 |
| Postage of office..... | 150 28 |
| Postage of members..... | 15 16 |
| Printing and binding..... | 163 80 |
| Special investigations..... | 40 80 |
| Miscellaneous..... | 19 40 |

Total.....\$777 11

President Hitchcock delivered an annual address on the "Entailments of Alcohol," in which he made a scientific and powerful exhibition of the miseries of drunkenness. It would make an admirable campaign document for the Prohibitionists. The Board tendered him a vote of thanks.

Dr. Bliss made a report upon the case of trichinæ at Port Huron, from facts furnished him by Dr. Northrup, of Port Huron. Dr. Bliss was requested to prepare a paper on this subject for the next report of the Board. He also made a verbal report of other cases which occurred in Ionia in 1866.

Dr. Kedzie mentioned a case of the poisoning of a family in Hillsdale County by the use of syrup containing sulphuric acid and sulphate of iron. The committee on Poisons was requested to prepare a paper on this subject, and other adulterations of food, for publication in the next report of the Board.

The President was authorized to appoint a delegate to attend the next general meeting of the American Social Science Association to be held in New York about May 26: provided no expenses accrue to the State.

A circular has recently been issued by the Board, calling the attention of local Boards of Health to their duties touching diseases dangerous to the public health.

A communication was read from the local Board of Health of Chester township, Eaton County, relative to 37 cases of scarlet fever which had occurred in one-half of this township, when the whole town only contains 165 children. Of the cases mentioned ten resulted in death.

The President was authorized to appoint a delegate to the next annual meeting of the American Public Health Association, if held within reasonable distance.

The next regular meeting of the State Board of Health will be held in Lansing, July 14.

Reviews.

TRANSACTIONS OF THE MEDICAL AND CHIRURGICAL FACULTY of the State of Maryland, at its Twenty-Fourth Annual Session, held at Baltimore, Md., April, 1873.

This is an old organization commenced in the days of the "giants," and still possessing enough vigor to present a fine copy of Transactions. Among its members we recognize the name of our friend Dr. Lane Tanehill, of Baltimore, Md. This gentleman has a good future before him, if only he will grasp the opportunities offered him.

The first paper is the "Annual Oration," by Thomas S. Latimer, M. D., in which he discusses the subject of Anæsthetics in Midwifery—an old but still controverted subject. He notices the "religious," and the "physiological," points of the question, and comes to the following conclusions :

"1st. That anæsthetics in labor cannot be rationally objected to on moral or physiological grounds.

"2d. That they are not more dangerous to life than are medicines ordinarily employed in the treatment of troubles of equal gravity.

"3d. That the danger of their use is fully counter-balanced by the danger they overcome, apart from the mere question of maternal ease.

"4th. That they have not been shown to increase the liability to *post partem* hemorrhage; nor is the inference that they are liable to do so fairly deducible from what is known of their mode of action.

"5th. That they have not been shown to exert any injurious effect upon the life or subsequent health of the child.

"6th. That they have not been found to affect injuriously the lacteal secretion, nor the healthful activity of any of the maternal functions.

"7th. That it has not been demonstrated that chloro-

form is more dangerous than any other equally efficient anæsthetic.

"8th. That chloral hydrate, and bichloride of methylene, give promise of greater immunity from danger, but that they have not yet been used in a sufficient number of cases to establish this claim.

"And, finally, that the use of anæsthetics in midwifery cannot be defended on the ground of their absolute freedom from danger, so far as has yet been shown, but solely on the ground that the dangers from which they give exemption are at least the full equivalent of the dangers incident to them, and that their gain is in freedom from suffering."

The next article is upon the "Theory of Contagion," by Prof. A. B. Arnold, Washington University, Baltimore, Md., in which he mentions the numerous opinions regarding the nature of the principle through which contagion occurs. First appears the theory of contagion according to the chemical law of catalyses, with its modifications, according to the views of Pasteur; then that of Salisbury and others, that it depended on living organism in the form of fungoid growth; then of Richardsons, idea of the part that certain alkaloid substances performed; and, lastly, of Lionel Beal, as to its connections with the independent vitality of germinal matter. With Dr. Murchison's "ochlesis," the author of the paper seems to favor the idea, as set forth fully by Beal, and supported by Sanderson and Simon, that contagion consists in living particles, and adduces the results of certain experiments with vaccine lymph, concentrated and diluted, in support of his views. In summing up he asserts the following propositions:

"1st. That infectious matter essentially consists of separate particles.

"2d. That these particles are not portions of protoplasm.

"3d. That they have a vital in contradistinction from a chemical action.

"4th. That some of them manifest the phenomena of germination and development.

"5th. That the special differences of these particles may be inferred from the special differences of contagious diseases."

The third paper is a "report of the Section on Practice of Medicine and Obstetrics," by John Morris, M. D. He notices the theory of Dr. Walsh that the parenchyma and not the mucous membrane of the lung is the source of hemorrhage; as to the use of xylol, etc., in small pox, skim milk treatment in diabetes, the *enucleation* of ovarian tumors as proposed by Dr. Minor, of Buffalo, and concludes as to small pox that—

"1st. That in some constitutions where vaccination has been perfectly performed it is a protection during life, but that in others it requires to be repeated at different periods to afford absolute protection.

"2d. That no patient who is vaccinated again and again can possibly contract variola.

"3d. That there has been no deterioration in humanized lymph, and, when pure, it is preferable in every way to that derived from the animal."

"Notes on Thoracentesis," by S. C. Chew, M. D., Professor in the University of Maryland, comes next. Its use in the days of Hippocrates; the means of diagnosis then in use to distinguish between pus and water in the pleura, by the sound in the latter one being like boiling vinegar; the prophecy of Læennec that this operation would become more common in consequence of discovery made by auscultation; with some very interesting illustration of the usefulness of the operations as proven in his own experience—all these are very ably told.

Then comes a Blepharo-plastic operation, "making of both lids to the left eye from contiguous tissue," necessitated by a keloid growth in that region, by Julian J. Chisolm, M. D., Professor of Eye and Ear in the University. We can but give his conclusions:

"1st. The successful removal of an ulcerated keloid growth, which is so seldom effected.

"2d. Large doses of the tinct. of the muriate of iron for the prompt arrest of traumatic erysipelas.

"3d. Silk sutures, well waxed, are more convenient and useful than metallic sutures in healing most wounds by the first intention.

"4th. Nervous sensation in the scalp and forehead restored after complete loss by nerve section.

"5th. Acquired sensitive impressions in the flaps, referring to their new locations.

"6th. The case is of great interest and rarity when viewed as a double blepharo-plastic operation."

A paper on "Intra-Cranial Necrobiosis, or Softening of the Brain," is given us by Henry R. Noel, M. D., which is described as follows :

"We are indebted to Virchow and R. H. Schultz for a word, which is particularly expressive in regard to these morbid processes, and which in a single term most happily meets the wants of the pathology of the present day, it is *necrobiosis*. Niemeyer's use of the expression *necrosis* is an unfortunate one, in this application, as it by no means gives the clearness so characteristic of the one used by Virchow; for we indeed have here most certainly a blending of life and death in the ultimate elements of brain tissue; an interstitial change in which the absolute death of many of the microscopic components is so gradual and so marked by absence of the usual signs of death of tissue, that we cannot admit the sweeping term *necrosis*, but gladly accept the more ingenuous one of "necrobiotic processes." By necrosis we usually understand death in mass, and this is best illustrated in its applications to lesions of osseous tissue; in parallel lesions of the softer tissues we use the phrases gangrene and mortification; but in *necrobiosis* there is a mixture of life and death side by side, and the tissues waste away interstitially, losing to a great extent their anatomical forms and giving us ultimately only the *detritus*, *debris*, the wreck of what once possessed substantial form and definite outline. In necrosis this substantial form and outline remains, in *necrobiosis* the very essence of the lesion is the gradual obliteration of the normal anatomical forms."

Its etiology, symptoms and treatment are given. The symptoms he divides as follows:

"1. Sensorial. 2. Motorial. 3. Mental.

“*Sensorial*—Sudden pain in the head,—or a pain deep, dull, fixed, protracted, tingling or numbness in one or more limbs. Hyperæsthesia, sensations of cold, local pains in muscles and aberrations of special senses, vision, hearing, smell, etc. Formications, burnings along the limbs.

“*Motorial*.—Convulsions, partial or complete paralysis, cramps and contractions of flexors, vertigo; dizziness, very sudden and often very transient. Vomiting, paralysis of bladder, urine retained, paralysis of sphincter of bowel and feces expelled involuntarily.

“*Mental Symptoms*—*Impaired intellectual power*; failure of memory; confusion of ideas, fickleness of temper, *morbid sensitiveness*, *self distrust*, depression of spirits, tendency to sleep, uneasy sleep, apathy, coma.

“Symptoms probably not due to softening. (Aitken.)

“1. Imperfect coma, partial loss of perception and volition, with rigidity of limbs.

“2. Perfect coma without rigidity.

“3. Paralysis without loss of consciousness.

“4. Paralysis with hyperæsthesia.

“5. Rigidity coming on after return of perception and volition.

“These symptoms are by no means infallible, but with collateral evidence are good data.”

Oscar J. Coskery, M. D., gives a very good paper upon the construction and ventillation of hospitals. He furnishes maps, with plans of hospitals for patients. Evidently the Doctor favors the “pavillion” style, the various excellencies of which are pure air, properly warmed, pure water and cleanliness. As to the rules of management he favors those that permit the easy access of friends to patients, as much for the moral effect as otherwise. The water is preferred to the earth closet. The rough “sand-float” is preferred for the interior in preference to smooth finish. As to ventilation he advocates air chambers beneath the floors for entrance of fresh air, and outlets in the wall of each room flush with the floor. We do not see but that this, as far as it goes, is as correct a plan as any.

Dr. J. J. Caldwell reports cases treated by Electricity, one a hard tumor of the mammary gland—successful; another, atrophy of limb succeeding hip disease—also successful.

A memorial of certain corporators of the Medical and Chirurgical Faculty, by Peregrine Worth, M. D., closes the volume.

Taken altogether it is no mean contribution from a body of *working* medical men.

TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY,
Sixth Annual Meeting. Newport, R. I. July 16, 1873.

The members of this Society are the first in the country in their specialty, and among the finest physicians. We notice the names of Dr. St. J. Roosa, H. Knapp, H. D. Noyes and C. R. Agnew, of New York; Dr. Green, of Boston; and Dr. Kipp, of Newark. Others there are who, no doubt, are their equal, but of these we have more intimate knowledge.

The first paper is a report on the progress of Otology, by C. H. Burnett, M. D., of Philadelphia. In this he speaks of a forthcoming work of Dr. Roosa, embracing 1st, the external ear; 2d, the middle ear; 3d, internal ear; 4th, deaf-mutism and hearing trumpets; also of Rudinger on the Labyrinth, and Waldeyer on the Cochlea and Acoustic Nerve, appearing in Strickler's Manual of Histology; Dr. Hasse's work on Comparative Morphology and Histology of the Membranous Auditory Apparatus of the Vertebrates, etc.; and a treatise on "Tinnitus Aurium," by Delstanche, are most noticed, but we have not time nor space to indicate all the valuable literature that is mentioned upon this subject. The extracts that he makes, with deductions therefrom, was of particular interest, we can but give the following:

"The forensic aspect of traumatic rupture of the membrana tympani has been treated by Prof. Politzer. In this connection there are two points to be considered—

"1st. Is there any injury of the membrane present, and if so has it been induced by the asserted cause?

"2d. Is the injury trivial or important?

"The usual method of producing the injuries in question, is by an ordinary 'box on the ear,' and if the case is examined soon after the blow, we may detect the injury, if it exists, and pronounce upon the cause which has produced it. As a rule, the wound produced by a blow on the ear gapes constantly, and is usually found in the postero-inferior portion of the membrane. The shape of the opening may be either round or oval, the latter with its long axis parallel with the radial fibres of the membrane."

"Prof. Moos has written a very interesting paper upon the 'significance of the higher musical notes, based upon pathological observation.' The paper contains the histories of seven cases which furnish data for the conclusions drawn by the author. Among these cases there are three of Meniere's disease, and one case of each of the following diseases: cerebro-spinal meningitis, hemorrhage into the labyrinth, meningitis, and concussion occurring in a man afflicted with rheumatic and syphilitic poison. Moos concludes his report with the following words: 'In considering the facts observed in the first four cases, we find that, upon the whole, they correspond with our knowledge of the significance of the higher musical tones in relation to the perception of speech. * * * The higher tones appear of greater importance for the understanding of speech than the lower ones. This observation corresponds with the physiological facts as regards the pitch of the single vowels and consonants, of which the human speech is composed. (Helmholtz and Wolf.) Aside from their diagnostic value, the cases reported in this paper are of interest to the aurist in regard to prognosis. In many cases of so-called nervous affections of the ear, the question as to whether the patient perceives the higher musical tones distinctly, faintly, or not at all, may furnish us with a clue as to the probable degree of recovery of hearing.'

"Your committee would state, in this connection, that a case of deafness for low notes has recently come under his notice. The young lady who was the patient was not at all deaf for the sounds of the human voice, but

was made aware of deafness for low notes by a curious occurrence. She was walking in the field with her father when a thunder-storm was approaching. Her father could hear the thunder, but she was unable to hear it. She also failed to distinguish the bass notes of the organ."

Many other articles of interest appears, such as a "report of three cases of ear disease," by A. H. Buck, New York, a "clinical contribution to aural surgery," by C. J. Kipp, Newark, N. J., where cases of inflammation of the middle ear, abscess of the mastoid cells, and false aneurism of the posterior auricular artery, are reported.

Dr. Green, of Boston, contributes a description of a method for performing tenotomy of the tensor tympani muscles," and Dr. R. M. Bertolet, of Philadelphia, expounds the value of such operation.

Several cases are given merit by Dr. Pomeroy, of New York, illustrating the results of paracentesis of the membrana tympani, etc. These are very interesting.

The following extract from a report of "hardness of hearing for low tones," we deem of peculiar interest :

"During the past winter, a young lady presented herself to me, complaining of hardness of hearing. I examined the membrana tympani of each side, but found no changes in them. The fauces showed no disease, and the Eustachian tubes were pervious. I then tested the hearing with the watch, tuning-fork, and voice. All of these were heard normally, and a whisper was heard twenty feet with greatest ease.

"The patient stated that she had never had any disease of the ears, but had always enjoyed very good hearing. I knew that she was an excellent musician. She had suffered some from dyspepsia, but lately that complaint had been relieved. I could detect no hardness of hearing for the ordinary tests, and told her so, when to my surprise she informed me that it was loud tones and noises which she could not hear distinctly; and she had consulted me, since she feared an extension of the inability to hear to fainter or higher tones.

"She first became aware of her deficiency while walking in the fields with her father, for the latter could distinctly hear the thunder of an approaching storm; but the lady, my patient, could hear nothing of that kind. Subsequent to this, she noticed that she could not hear the bass notes of an organ on which she was accustomed to perform, and therefore missed such notes in the chords.

"In Dr. Moos's cases we find deafness for high notes, and a consequent inability to hear conversation of an ordinary pitch. In my case, the patient possessed hearing for ordinary noises and conversation, because her hardness of hearing was confined to tones of few vibrations per second, indicating, perhaps, an altered function of some of Curti's arches, but more probably an alteration in the position and tension of the sound-conducting apparatus.

"If in my patient the ability to hear high tones were increased, we might well assume that there was a retraction of the membrana tympani, too slight to be detected by the eye, but enough to render the hearing more acute for high tones and less acute for low tones."

Several other papers of interest are found in the volume, but we have not space to enumerate them.

The book can be obtained from A. Mudge & Son, 34 School street, Boston, Mass.

A MANUAL OF TOXICOLOGY—Including the consideration of the nature, properties, effects and means of detection of Poisons, more especially in their Medico legal relations. By John J. Reese. M D., Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania. J. B. Lippincott & Co., Philadelphia; Cathcart & Cleland, Indianapolis.

This is a work not to be ignored, it being a very good treatise on the subject; and we are pleased to find that we are fast approaching the time when our reliance for authority can be found within the United States instead of Europe.

AN OPERATIVE MANUAL—LIGATION OF ARTERIES. By Dr. L. H. Farabeuf; translated by John D. Jackson, M. D., Danville, Ky., from the French. With Engravings. J. B. Lippincott & Co., Philadelphia; Cathcart & Cleland, Indianapolis.

The translator tells us that—

"In Great Britain, and especially on the Continent, there is a continuous demand for such operative manuals, engendered by the laws of their medical educational curriculum, requiring a practical test of operative skill from every candidate for the doctorate.

"Unfortunately for the profession and the public here in the United States, such requirement is not yet obligatory; and most young medical men leave our colleges with no experience whatever in practical operative surgery."

This is too true; but we hope such works as the present, bringing to view the example that we should follow, will do much toward changing such a state of things here, and that soon our students shall go forth, having had the advantage of all that is known as to means of education.

A TREATISE ON THERAPEUTICS, COMPRISING MATERIA MEDICA AND TOXICOLOGY, with especial reference to the application of the Physiological Action of Drugs to Clinical Medicine. By H. C. Wood, Jr., M. D., Professor of Botany and Clinical Lecturer on Diseases of the Nervous System, in the Medical Department of the University of Pennsylvania. J. B. Lippencott & Co., Philadelphia; Cathcart & Cleland. Indianapolis. 1874.

This is among the best treatises on the subject mentioned that we possess; it is the work of one well known to the profession as an ardent friend of medical science, and a most vigorous worker.

A PRACTICAL TREATISE ON THE SURGICAL DISEASES OF THE GENITO-URINARY ORGANS, including Syphilis, designed as a Manual for Students and Practitioners, with engravings and Cuts. By W. H. Van Buren, A. M., M. D., Professor of the Principles of Surgery, in Bellevue Hospital College and E. L. Keyes, A. M., M. D., Professor of Dermatology, in Bellevue Hospital College, D. Appleton & Co., New York; Cathcart & Cleland, Indianapolis.

We have not space to give this work more than a brief notice, and to say that it is complete in detail—exhaustive as to the subject it treats of. All whose delight is in *sexual* subjects should possess it.

LECTURES ON THE CLINICAL USES OF ELECTRICITY—Delivered in the University College Hospital, by J. Russell Reynolds, M. D., F. R. S., Fellow of the Royal College of Physicians, etc. Second edition. Philadelphia. Lindsay & Blackiston. 1874. Cathcart & Cleland, Indianapolis.

These lectures were published in the London Lancet during the time they were being delivered in 1870, and embrace besides general remarks on the clinical use of Electricity, a description of the various forms—Franklinic, Galvanic and Faradic. After which its diagnostic and therapeutical uses are noticed, and a short appendix as to the requirements of the electrical room. It seems to be a clear exposition of the subject, and at the same time compact.

Editorial.

NEW MEDICAL COLLEGE.

The troubles which have been brewing for some time past in medical circles, with regard to the management of the present Medical College, have culminated in the organization of a new institution. As will be seen by the list below, articles of association have been filed by a large majority of the old practitioners, assisted by nearly all the younger members of the profession. The following compose the incorporators of the new college: James S. Athon, M. D., (President Indianapolis Board of Health); P. H. Jameson, M. D.; W. C. Thompson, M. D.; I. C. Walker, M. D.; James H. Woodburn, M. D.; Theophilus Parvin, M. D.; D. H. Oliver, M. D.; R. N. Todd, M. D.; G. V. Woolen, M. D.; J. M. Dunlop, M. D.; J. Thompson, M. D.; James K. Bigelow, M. D.; L. I. Todd, M. D.; D. Funkhouser, M. D.; A. W. Patterson, M. D.; Thad. M. Stevens, M. D.; Henry Jameson, M. D.; J. R. Featherston, M. D.; Chas. C. Boynton, M. D.; F. N. Bryan, M. D.; A. Stratford, M. D., (Secretary of Board of Health); H. Brubaker, M. D.; G. Kaiser, M.

D.; J. N. Smith, M. D.; W. B. McDonald, M. D.; H. T. Whitman, M. D.; O. H. Sullivan, M. D.; J. A. C. Lyons, M. D.; W. B. Lyons, M. D., of Huntington, Indiana, Vice President of Indiana State Medical Society; W. Hobbs, M. D., Knightstown, Ind., late President Indiana State Medical Society; A. H. Bryan, M. D., Indianapolis; R. E. Houghton, President Indiana State Medical Society, Richmond, Ind.

The incorporators will meet in a few days for the purpose of selecting trustees, and the interest taken by so many eminent physicians would seem to guarantee the success of the new enterprise.

We clip the above from the Indianapolis Sentinel. This Medical Journal has never been the organ of any school; nor will it be, so far as the Editor is now aware.

The old Indiana Medical College still exists, with certain merits and demerits. While changes have taken place in its faculty, time only can determine whether such will be for its benefit or injury. If it pursue a course honest and earnest, striving to elevate the standard of medical education, and not seeking to work harm to any individual, we hope it will prosper. If a contrary course is pursued, it will contain the elements of destruction within itself.

The new organization was commenced for several reasons, prominent among which was the desire to have a faculty constituted and controlled by a competent board of trustees, a majority of whom should be regular practitioners of medicine. By such a board wrong may be done, but it will soon be remedied. Without such a board we cannot see, in the light of former experience, how disintegrating elements are to be excluded.

Thus far the action of the incorporators has been to appoint their trustees. Who the faculty shall be, or from whence they are to be obtained, we do not know. One thing is certain, the State has been behind long enough. At the present time everything seems tending

to develop a better epoch; in general educational matters we are seeking the front—at least by energy of action, perfection of detail will follow.

In this move for a new medical school, we can see nothing but this spirit of advance. Let the incorporators, trustees and faculty pursue an honest and energetic course, striving to attain that ideal medical school that we all have had dim glimpses of, and the profession will endorse them; but if they fall into the slough of despond, they will but share the fate of all who are weak or fearful.

MEDICAL COLLEGES.

That a Medical College should prosper there are certain things requisite—

1st. A corps of good teachers.

2d. A board of trustees, a majority of whom should be medical men.

3d. The school should be untrammelled, “flexible,” able to suit itself to circumstances, and not bound by rules made and enforced by men who are personally interested in obtaining and retaining positions in the faculty; nor yet by laymen who practically know nothing of, and have not much common interest in, the wants and necessities of the school, being guided only by a knowledge of general education.

Guided by the experience of other States and other colleges, we cannot say we favor the union of medical colleges with State institutions of instruction. There is something to be said in its favor truly, but, taking it all in all, we would rather risk a separate organization. Everything may work well for a few years, but experience has proven that the school thus situated is resting

upon a volcano—trouble will come in some shape or other, and such trouble as will be vital as regards the prosperity and well being of the medical department. Either as in Michigan, irregulars will, by slow degrees, force discord upon the faculty to the permanent injury of the school, or the school and medical men connected therewith will (if we judge by the same experience,) be cramped, and in the end will be outstripped in the race by those connected with the free organization. We need not here discuss the philosophy of this, or even mention a reason why it is so, but simply advert to it as the almost universal teaching of experience. Very true, if conceit is equivalent to knowledge, or arrogance and insolence the test of merit, then we are doubtless at fault in such a reading of experience. But those qualities are often associated with sloth or superficial attainments; and he who presumes to rely for safety from the flood and tempest of working life upon the support of the rocks—"State" or "close corporation"—will find that he had far better have taken to the vessel in the open sea, where the skillful sailors work, where all is free, and the wind wafts, while the helm guides it over the waves—dangers are avoided or overcome with far greater safety and ease than upon the coast where the breakers are.

Where are the prosperous Medical Schools?

In Philadelphia, the Jefferson, although much younger than the University, has outstripped her.

In New York, none will deny the greater prosperity of the College of Physicians and Surgeons, or Bellevue Hospital College, to the University of New York.

In Ohio and Kentucky, the same facts are prominent as to the success of the schools upon the basis of support from and control by the medical profession.

In Illinois, the Rush, notwithstanding some "draw-backs," will stand the test and take one man out of the University, and the preponderance in prosperity for the Rush would be more apparent still.

In Michigan prosperity is not apparent when we view the University at Ann Arbor, for by that word we do not intend to confine ourself to the number of students, to the accidental appearance of a shining light among the professors, or indeed to any *one* circumstance, but the *tout ensemble*. Here we find jewels in danger of being found among swine—incompatible brought in contact—in consequence of which students have decreased and the best men and teachers deserted. Can we call this prosperity? and yet it is the *direct* fruits of union of the medical school with the University.

There is, in truth, but *one* way to form and carry on medical schools with success for any length of time—to have them independent, separate organizations, governed by a board of trustees, the majority of whom are physicians, and with a scale of prices for instruction, etc., common to all in the same locality. No influence will affect them to their injury. The best men will be selected without regard to nepotism or prejudice; while a fair and reasonable recompense will be awarded to teachers, but based upon certain contingencies of hard work, attention to business, and the more thorough cultivation of their talents for the purposes for which they were selected. This will cause them to be always bright and efficient, or else be cast quickly aside for the more worthy.

Miscellaneous.

CHICAGO PHARMACIST VS. IODO-BROMIDE OF CALCIUM COMP.

About a year since, the Chicago Pharmacist, edited by Mr. Ebert, made a furious, uncalled-for, and libelous attack upon us and Bromo-Chloralum, and after a sharp correspondence, backed out. He has lately gone into

convulsions over what he assumes to be an analysis of the "Iodo-Bromide of Calcium Compound," published in an Austrian Journal. We fear his periodical convulsions will become chronic and seriously impair what intellect he has left, after so exhausting an exercise of his fertile brain. Unfortunately the Austrian chemist or journal that published the analysis, in the use of names, has managed to mix up the Bromo-Chloralum with the Iodo-Bromide of Calcium, and the astute editor has put the saddle on the wrong horse.

We hardly know which to admire most—his ardent desire to abuse something or somebody, or his ignorance and stupidity—for an analysis of the "analysis" would have shown the error. We trust he will continue his researches and enlighten the profession still further, because it is not only interesting but decidedly refreshing to see a person so completely outwit himself. His pedantic assumption of scientific knowledge will be properly appreciated by the learned profession he aspires to teach. We have no knowledge as to how any Iodo-Bromide of Calcium reached the Austrian capital, if it ever did.

T. & Co.

Broo-mChloralum 20° Baume, Sp. gr. 1.160.

Salts..... 34.60 grains.

Analysis accounts for..... 26.42 "

Deficiency..... 8.18 "

Iodo-Bromide of Calcium 35° Baume, Sp. gr. 1.320.

Salts..... 61.25 grains.

Analysis accounts for..... 26.42 "

Deficiency..... 34.83 "

—*Druggist*, June, 1874.

Dr. Hays

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Original Communications.

RECOLLECTIONS OF MEDICAL SERVICE DURING THE WAR WITH MEXICO.

BY A. PATTON, M. D.

When the declaration of war with Mexico was proclaimed by our government in 1846, I was a resident of Raymond, Mississippi, and at once shouldered my rifle and marched for the front, a *private* in Capt. Downing's company, Jeff. Davis's regiment, First Mississippi Rifles. I was detailed for service in the medical department, which gave me an opportunity of observing many interesting forms of disease and incidents connected with the medical service, some of which may interest the profession.

At Brasos Island, the regiment encamped upon a sandy plain, where we remained for two weeks. Soon after arriving at that doubly heated place, the men began to have attacks of colic, resembling in all respects Colica Pictonum. The attacks were always sudden, and the pain in the epigastric and umbilical regions was in-

tense beyond any I had ever witnessed. Stout and brave soldiers often screamed so loud from severe suffering that it aroused their comrades from their own and other companies, who crowded the tent thinking that their friend was dying; but the employment of large doses of morphine, together with very hot fomentations to the abdomen, invariably afforded relief.

The cause of these attacks was evidently the water we were compelled to drink, which was obtained by making an opening about two feet deep in the loose sand, where was found a clear, cold, sweetish tasted water, containing no doubt some mineral substance that acted as an irritant and excitant to the minute extremities of the gastric and other branches of the pneumogastric nerve, producing precisely the same effects as lead poisoning. None died from the immediate effects of this poisoning. The regiment was removed to the Rio Grande, where we had different water, and not another case occurred.

The importance, in a medical point, of this incident is, that medical officers should be careful to inspect the water by chemical analysis that soldiers are required to use, and if it is found to contain unwholesome matter, suggest an immediate removal to quarters where better water can be obtained, or if this is impossible advise the boiling of water before drinking it.

During the late civil war, while serving as Brigade Surgeon of Maxey's Brigade, the troops were encamped on both sides of a small rivulet, the water of which was used for drinking and culinary purposes. It was clear and pleasant to the taste, but the men soon began to suffer with diarrhœa, and enteric fever became prevalent. I addressed a communication to the General, suggesting that animal excrement and other camp impurities found their way into the water by being washed down the gently descending hill sides on which the soldiers were encamped, rendering the water poisonous, producing irritation of the mu-

cous membrane of the stomach and small intestines, having a specific effect upon the agminate glands situated in the ileum. In response to my request, the soldiers were ordered not to use the branch water, but to haul water from the river, and soon after this change was made there was a marked improvement in the health of the troops.

When the regiment reached Camargo, I was relieved from duty as a private soldier and physician and appointed an Acting Surgeon by General Z. Taylor, and ordered to Matamoras for medical service in the hospital. I was placed in charge of a building having one hundred beds in it, which were kept constantly occupied by sick soldiers, the prevailing types of disease being typhoid fever and diarrhœa. A striking peculiarity of the fever was the tendency to ulceration and perforation of the bowels. The fever was markedly asthenic, extreme emaciation, very little cerebral disturbance, and the fatal cases nearly always ending with perforation.*

I was standing by a poor emaciated patient one afternoon, interrogating him as to his feeling, and he was congratulating himself and greatly pleasing me, with a prospect of a speedy recovery. The febrile excitement was scarcely perceptible, the tongue moist, clean and healthy color, some appetite, and the bowels not moved too frequent; but after making a sudden turn in the bed, he uttered a loud cry and complained of intense pain in the right iliac region, which at first was confined to a small spot. The pain rapidly spread over the abdominal region, and before the dawn of the next day he was dead—perforation of the ileum had taken place.

Another young soldier had been eight weeks sick with typhoid fever, was reduced to a skeleton, but a slight improvement had commenced, when it was reported at the hospital that the city was to be attacked by General Ampudia, and the surgeons were ordered to have all patients able to bear arms to place themselves in readi-

ness to meet the enemy. I selected hastily such as I thought able to make a fight, but upon returning in an hour what was my astonishment to find my typhoid fever patient standing on his feet, dressed in all the paraphernalia of the soldier, and with gun in hand ready to face the advancing foe. I instantly ordered him back to his bed, but perforation had taken place, and he died next day.

A remarkable instance of fatality occurred in this hospital from the same disease. I had placed six very sick patients in one room. I visited them at night, and upon making a careful inspection, I made an unfavorable prognosis in all. The next morning I repaired to the room very early, and found the entire number dead, not a live man in the room except the nurse, and he was frightened badly. They all died near the same hour, between five and six o'clock. This was very discouraging to a young doctor, but we placed the blame upon the regimental surgeons for keeping them in camp too long; but after experience convinced me that such patients did much better in camp, and even in the open air, than in crowded hospitals. Since then I have treated many cases of camp fever in the open air, removing even the tents, and with remarkably good results. This indicates the great importance of pure air and sunshine for typhoid fever patients. I would prefer to treat such a patient in the open air in mid-winter than in a crowded and ill-ventilated hospital such as we used at Matamoras.

From investigations I was enabled to make I was induced to believe that there was some connection in the cases of typhoid fever, especially those in which the ulceration of the agminate glands occurred, resulting in intestinal perforation, with those cases of colic I had observed at Brasos Island, as the men had, like our regiment, all made a short stop there and drank the same kind of water, and many of them suffered from

its poisonous effects. But although there was doubtless an etiological relation in these cases, yet it must be admitted that the defective ventilation of the hospital building, with its very low ceilings and small windows, was the main cause of the great fatality of the disease. But as miserable as was the ventilation in the hospital, it was a thousand times better than in many of the private dwelling houses in Matamoras, as I had an opportunity of observing by making professional visits to officers who were compelled to obtain private quarters when sick.

From Matamoras I was transferred to Camargo, and assigned to duty with Colonel E. D. Baker's Illinois regiment. While there an amusing incident occurred. Charges were preferred against one of the medical officers of Colonel Willis A. Gorman's Indiana regiment, and I was ordered by the Medical Director to investigate the charges. I found Colonel Gorman and one of his captains in waiting for me at the Colonel's headquarters. In a few words the captain explained the nature of the charge, when he asked, "What would you think of the skill of a physician who prescribed gunpowder, tar, and beefsteak, as a diet for a patient very low with typhoid fever?" This was more serious than I expected, and I demanded to see the prescription, which I found was written in the doctor's best style, and which I readily deciphered to mean, "Diet—gunpowder tea and beef tea, every four hours alternately." I explained the prescription to the Colonel and the officers making the charge, and left them better satisfied with their medical officer. The moral of this is that doctors should learn to write a legible hand, as from the neglect to do so they often suffer in reputation, and that which is far worse, it sometimes leads to serious mistakes by druggists and nurses.

I was called to visit Lieut. Hubbard, of Greenville, Illinois, whom I found in a room in which there was not

a window and but one door. He was suffering from a severe attack of measles, and was then delirious, the cerebral irritation being very decided. I insisted on his being removed from the close room at once, but no place could be found; and I applied to the surgeon-in-chief for permission to place him in the hospital, but was informed that it was contrary to the army regulations for a commissioned officer to be taken into a hospital—they must secure private accommodations. This was, in my judgment, carrying red tape too far, and I placed him in the hospital on my own responsibility, and by careful attention he recovered and is still living.

Another case is worthy of mentioning. A young man who belonged to a Georgia regiment, had been sick three weeks with typhoid fever. Suddenly all the symptoms of perforation ensued. I was called to see him at two o'clock in the night, and found Father McElroy, a Catholic priest, kneeling by his bedside. After the religious exercises were closed, I examined him and found him cold and almost pulseless. I determined to make an effort to establish reaction, which was effected by almost covering him with sinapisms and giving large doses of aromatic spirits of ammonia. The next day he was better, and by persevering with a stimulating and supporting treatment he recovered. The good Father McElroy was greatly astonished as well as delighted with the young man's recovery, and carefully took his name and place of residence, saying to me that he felt sure the Lord had preserved the young soldier's life for some great and good purpose, and that he intended to keep informed of his course in life. I have never heard of him since. His name was Hackett.

PLACENTA PRÆVIA.

BY J. H. BRILL, M. D.

A Case reported to the Hendricks County Medical Society.

I was called May 18th, 1873, to see Mrs. M., who was reported to be flooding to death. When I arrived, the face of the patient and the surroundings told that a frightful hemorrhage had taken place. I at once approached the patient and inquired if she was still losing blood? She replied in a low, feeble voice, "Not just now." She gave the following history: Age, twenty-six years; has been married nine months and nine days; menstruated the following week after marriage; since then no catamenia; has had morning sickness and vomiting for the last seven months; has had stomach trouble and cough for several years. She worked as a hired girl from place to place for ten years before she was married. Says she commenced to lose blood two months ago; that it has occurred from one to three times per week since. The hemorrhage has generally come on during or after active exercise, which was the case to-day.

Present condition.—Woman of medium size; tongue of a dirty brown appearance; very anæmic; pulse, 125; respiration, 24. The vaginal canal was filled up with coagulated blood; the os was dilated only sufficient to admit the point of the index finger; a somewhat roughened fleshy mass could be felt laying over the mouth of the uterus. No uterine contraction, and is losing no blood now. My diagnosis was placenta prævia. Ordered *qui. sulph.* and opium, good diet, and enjoined quietude in a horizontal position. I explained the nature of the case to the husband, and gave an unfavorable prognosis, telling him upon the slightest hemorrhage again to send for the family physician.

May 20—Sent for to-day at 10 o'clock. She has lost but little blood since my visit on the 18th inst.; is very

weak; same treatment continued, with the addition of Tr. Ferri Chl. They now desired me to take charge of the case. I requested to have my friend, Dr. Estman, see the case with me next morning.

Armed with Hodge's forceps, Barnes' uterine dilators, and other necessary instruments, we saw the patient at 11 A. M., and to our surprise found the woman in labor; the hemorrhage had come principally from the right side; the placenta was found to be almost central. The uterine contraction was, like the patient, quite feeble. Gave quinine and ergot.

About three o'clock, P. M., while the head was high up in the pelvis, Dr. Estman applied the forceps. I administered chloroform, and with each pain the Doctor made traction, and in a short time the woman was delivered of a large male child. The placenta was removed easily. I do not think more than one ounce of blood was lost from the time we entered the house until delivery was complete.

May 22—Rested well last night, except slight nausea and vomiting at times. Says she "feels better this morning."

May 23—Rested badly last night; vomiting quite frequently; slight tenderness over uterus; no tympanites; some lochia last evening. Pulse has remained at about one hundred and twenty since delivery.

Evening, 6 o'clock—Stomach rejects everything taken; irregular respiration and prolonged expiration. Placed a blister over epigastrium, and gave small pieces of ice and a teaspoonful of wine whey every fifteen minutes; all other medicine and nourishment to be given per rectum; three small stools since morning.

May 24—No vomiting this morning, but complains of nausea; uterine tenderness not so great as yesterday; otherwise no improvement.

May 25—Can take nourishment and medicine by the mouth this morning, most of which she spits up. Good

nourishment and stimulants have been given this patient from the commencement, but nothing appears to be digested or assimilated.

May 26—Died at two o'clock A. M.

Remarks.—There is a difference of opinion among the profession as to the treatment in placenta prævia. They all agree as to the danger to both mother and child. Some say leave the case to nature; others deliver by bringing on premature labor. If I had been called to see the unfortunate case that I have just detailed a month or six weeks sooner, and been convinced in my diagnosis, I would certainly have proposed to invite labor before repeated hemorrhages had exhausted my patient. Although my case did not directly succumb to the loss of blood on the 18th inst., when I first saw her, it did take away what little chance the unfortunate woman had left to recover. It is a question whether "transfusion" could have been a benefit in this case. The irritated state of the system and the chronic gastric trouble point to a negative result.

RETAINED PLACENTA.

BY J. B. HOAG, M. D., CALLAO, LAPORTE COUNTY, IND.

On the 11th day of February, 1873, I was called in consultation with T. M. Goldsberry, M. D., to a case different in many respects from any that it has been my lot to encounter. From the fact of its being one of rare occurrence, at the solicitation of Dr. G., I am induced to give a succinct narration of it. The Doctor kindly furnished me with the facts that transpired up to the time that I first saw the case, which was about 2 o'clock P. M. I will here state that the patient had previously enjoyed good health, and her first accouchment (this

being her second,) occurred without any untoward or unusual circumstance attending it.

Mrs. B. C. was large, muscular, and had inherited from her father a strong constitution; aged about twenty-four years. At 11 o'clock A. M., she was delivered of a healthy child at full term, labor having commenced at 10 o'clock the previous evening. After the birth of the child there was profuse hemorrhage, which, however, did not have the tendency to exhaust the strength of the patient to any appreciable extent.

From Dr. G. I learned that the labor had been hard and tedious, and the child was born with difficulty. Although the patient was large and the pelvic cavity evidently ample, the vaginal canal was contracted, unyielding, and of unusually small size. This fact rendered it extremely difficult for the doctor to insert his hand, and doing so caused the patient no little pain. He, however, removed a small part of the placenta, and the hemorrhage ceased.

About 2 o'clock in the afternoon, the patient's father took me to the scene of suffering and anxious solicitude, to assist the doctor. Through the succeeding night we resorted to traction of the cord, as much as prudence would permit, manipulation of the abdomen, efforts to insert the hand into the vagina for the purpose of detaching the adhered placenta (in which we were but slightly successful,) and every other means in our power, for the purpose of giving relief.

On Monday, the 12th inst., hydrate of chloral was procured and administered in as large doses as we thought prudent, and while she was under its influence efforts were made again to detach the placenta, with but little success. The cord was firmly adhered, and seemed to have bifurcated and be spread over and firmly adhered to the internal coat of the uterus. Chloroform was also procured, which I administered, while Dr. G. inserted his hand into the vagina and succeeded in removing a

considerable part of the placenta, amid the cries and shrieks of the patient, who, though to a great degree insensible, evidently suffered.

With our full consent, the patient's father went on the train to another town, some eight miles distant, and brought Dr. Thornton. He arrived at a little after noon, and on being informed of the history of the case, gave our treatment his full and unqualified sanction, stating to the anxious friends that we had done all that was possible. He advised to leave the removal of the remainder of the placenta to the unassisted efforts of nature, suggesting that the case should be well watched in order to arrest flooding if it occurred.

About dark Dr. T. and I left, leaving the case in Dr. Goldsberry's hands, who remained through the succeeding night, and a greater part of the next day. The cord and the remaining portions of the placenta in a few days sloughed off, and the case rapidly progressed to a speedy recovery.

INDIANA MEDICAL COLLEGE AND STATE UNIVERSITY—THEIR CONNECTION.

MR. EDITOR: I noticed a short time since in the Indianapolis papers an article headed "Not off with the old love," in which it was stated that the Board of Trustees of the State University had expressed a determination to continue their connection with the Indiana Medical College, and to make it more efficient than it had heretofore been; the whole tenor of the article being that the Medical College was fully recognized as a permanent medical department of the University.

Truth is better than falsehood, and if the latter has to be resorted to for the purpose of bolstering up the

failing fortunes of the College in question, it is but proper that a slight reminder should be given the parties interested. For the edification of the profession at least, we desire to present the *true* report of the Committee to the Board of Trustees of the University, which report was adopted, and expresses the present status of the medical school :

“Your Committee would also report that the report of the Faculty of the Indiana Medical College shows a high state of success in the College last year, more than one hundred students having been in attendance. The changes in the Faculty recommended we respectfully ask to be approved.

“Your Committee also report that they have given the petition from the medical profession throughout the State a careful consideration, asking that this Board organize a Medical Department in connection with the State University, to be located at Indianapolis, and that this Board select the Medical Faculty. Your Committee find the petition signed by a large number of eminent men in the profession throughout the State, whose request is entitled to consideration.

“Under a contract entered into between this Board and the Trustees of the Indiana Medical College three years ago, an arrangement was made by which the Medical College agrees to furnish tuition free of charge to all applicants, looking exclusively to the Legislature for any remuneration, and not holding the Board responsible in any particulars for any pay or consideration, unless authorized by the Legislature. Under the contract, which does not expire until the spring of 1875, your Committee would report that this Board is not in a condition to act on *the petition at this time*, and will not be until the expiration of the contract referred to.”

We were lately shown a letter from one of the Committee, written with the express intention of explaining the action of the Board, in which he says that they concluded to recognize the Indiana Medical College as a branch of the University until the spring of 1875, they not paying them a dollar of compensation, and the con-

nection to end at that time; that there would be no disposition to renew any such arrangement when this time was out; and that any such notice as the one referred to in the first portion of this communication "was an exaggeration of the action of the Board."

If the gentlemen connected with the Indiana Medical College will eat such humble pie as is here placed before them—working with the certainty of no pay, and a speedy ending of all connection with the State—we do not know that we can blame them for striving to cover up their forlorn condition by a little bravado. Perhaps when the spring comes, with its fresh buds and flowers, emblems of renewed energy, they may have vitality enough to inaugurate a manly policy—demanding some compensation for their services (if, indeed, they be worthy of it), and, for the sake of the profession, not become a by-word. *

Proceedings of Societies.

THE AMERICAN MEDICAL ASSOCIATION.

The American Medical Association held its 25th annual meeting in Detroit beginning Tuesday morning June 2, and closing its session at noon on Friday, June 5. The Association met once before at Detroit,—18 years since. This is said to have been one of the most interesting and successful as well as one of the most enjoyable meetings ever held by the Association. Between four hundred and five hundred delegates were in attendance, representing State, District and County Societies,

the army and navy, hospitals and asylums. There were also quite a large number of "members by invitation," including several from Canada. Altogether the physicians in attendance numbered about 700.

Dr. Brodie, chairman of committee of arrangements, delivered an address of welcome. In the course of this address he contrasted the present improved condition of Detroit with its condition at last meeting here 18 years ago. The city then had 40,000, and now has over 100,000 inhabitants. He referred with pride to their magnificent city hall, to their school system, hospitals, water supply, pleasant location, besides the beautiful Detroit River, and to the "happy state of health" enjoyed by the citizens,—claiming Detroit as one of the healthiest cities in the Union.

The address of the President, Dr. J. M. Toner of Washington, was well received, and contained much that was suggestive of thought as to the aims, methods, and tendencies of the profession, and its relation to the people. Among the various topics touched upon, he referred to the increasing knowledge in the profession and its consequent increasing influence on society.

The following resolution was introduced by Prof. Kedzie:

Resolved, That it is expedient at this time to petition Congress for the establishment of a national sanitary bureau.

This resolution was adopted; and after further discussion another resolution, originally introduced by Prof. Kedzie, but modified by Dr. Bell of New York, and Dr. Johnson of Chicago, was also adopted, as follows:

Resolved, That with a view to the establishment of a national sanitary bureau, it is expedient at the present time to press, through State societies and physicians in all the States, upon the Legislatures of our several States the importance of establishing State boards of health.

SECOND DAY.

REPORTS FROM CHAIRMEN OF SECTIONS—BY DR. PARVIN, CHAIRMAN SECTION OF OBSTETRICS.

The hour of ten o'clock having arrived, Dr. Parvin, of Indianapolis, Indiana, chairman of section No. 2, read an address having peculiar reference to the branch of medical science committed to the section.

On motion the thanks of the Association were extended to Dr. Parvin, for his address, and the paper referred to the section for its action.

HYGENIC RESPONSIBILITY.

Dr. A. N. Bell, of Brooklyn, New York, chairman of the section on State Medicine and Public Hygiene, read an address. It was attentively listened to, and some portions much applauded:

"It is held in law that whoever accelerates death causeth it."
—*Taylor's Medical Jurisprudence. American edition, 1871, p. 740.*

The mortality of the United States for 1870 was 492,263. A glance at this tabulated estimate in the census report will show that about one-half of the total number of deaths was caused by the diseases due for the most part to miasms, consequent upon soil saturation and stagnant water. That from consumption alone there were 69,896 deaths. From enteric, intermittent, remittent and typho-malarial fevers, and cerebro-spinal meningitis, there were 34,529 deaths. Rheumatism, acute pulmonary affections, croup, diphtheria, and many other diseases well known to be largely due to, or promoted by the same cause, may, for our present purpose, be left out of the count. Of the 69,896 deaths from consumption, and 84,521 deaths from ordinary miasms, three-quarters of them, at the least, or more than 75,000 lives, might have been saved by drainage. For illustrations of the results of defective drainage, it is more difficult

to go amiss than to designate. For its consideration in detail in some of the States, attention is invited to the special reports submitted by the members of the section representing them. Since writing up the subject for the City of Brooklyn and County of Kings, for the report on the State of New York, Dr. James Watt, registrar of vital statistics to the Brooklyn Board of Health, has kindly prepared for me a table showing the comparative mortality from consumption in the different wards of the city. Its full value to Brooklyn can be appreciated by those only who are familiar with the city topography, while it illustrates conditions common to all our large cities.

Take, for example, an old and well-built up ward (the Third,) containing a population of 9984, which is not known to have any soil saturation, its situation being such that the ordinary street grading and sewer culverts effectually drain it. The deaths from consumption in this ward last year were fourteen; or 1.40 per 1000 of the population. An adjoining ward (the Sixth,) with a population of 28,296, of corresponding large area, however, it being even less densely built up than the former, but about one-half of it subject to soil saturation, had of deaths from consumption 171, 6.04 per 1000 of population. Sixty-one of these deaths occurred in hospitals situated in this ward, and were in part from other wards. After deducting the whole sixty-one there still remain 4 per 1000, or nearly three times as many deaths per 1000 of population from consumption over this area of soil saturation as in the one devoid of it.

Of malarious and zymotic diseases generally, the deaths over the non-saturated soil (of the Third Ward) were 2.40 per 1000 of population. From the same diseases in two soil-saturated wards (Twelfth and Eighteenth,) extending over a large area, and for the most part sparsely built up, as compared with the non-saturated area, there were 9.86 per 1000 of population, of near-

ly four times as many. I might thus go over the whole city and show the influence of soil saturation on the mortality, point out the neglected natural soil saturation in one place, and the carelessly constructed soil saturation in another.

The total number of deaths in Brooklyn last year was 10,968, and not less than one-fourth of them were accelerated by defective drainage. And yet Brooklyn is no exception in this regard. On the contrary, the death rate of Brooklyn compares favorably with other of our large cities, which is abundantly shown by the following example. The total annual death rate of Brooklyn, from consumption, last year, was 3.47 per 1000 of population (census of 1870) and on the whole number of deaths the per cent. for consumption was 12.55. In the City of New York, on an estimated population at the present of 1,000,000, there are of deaths from consumption 4.13 per 1000 and 14.22 per cent. of the total mortality. Boston, 3.96 per 1000 of population, 13.84 per cent. of mortality; Philadelphia, 3.05 per 1000 of population, 13.65 per cent. of total mortality; San Francisco, 2.74 per 1000 of population, 14.12 per cent. of total mortality; Albany, 3.43 per 1000 of population, 15.50 per cent. of total mortality; New Orleans, (where the benefits of a mild climate opposed to consumption are conduced by defective drainage,) 3.96 per 1000 of population, 13.84 per cent. of total mortality. By States, of the total mortality in the United States 12.45 was caused by consumption. In New York, 16.17; District of Columbia, 21.19. A concise table of the ratio of deaths from consumption in every State in the Union may be found in the "Dictionary of Elevations and Climate Register," by Dr. J. M. Toner. Under approximate temperature the ratio of mortality from consumption, in regard to defective drainage, will be found scarcely less deviating than miasmatic fevers.

Wherever misery, disease and short life predominate

there always exists, at man's disposal, the means of relief; to find out and apply these means is the exercise of sanitary science.

It becomes our duty as sanitarians to show the authorities that it costs less to have human habitations constructed with regard to the protection of life, with provision for an abundant supply of pure air, water, and light, paved and cleanly streets, efficient drains and sewers, than it does to neglect these provisions; that imperfectly constructed houses, mill-dams, steam-ships, and other human habitations and highways all fall under the category of neglected measures accelerating death."

On motion the thanks of the association were tendered to Dr. Bell, and the paper referred to the section for action.

The names of the following gentlemen were announced as having been appointed

DELEGATES TO FOREIGN BODIES.

R. J. Levis, Philadelphia, Pa.; D. G. Brinton, Philadelphia, Pa.; T. M. Drysdale, Philadelphia, Pa.; E. C. Howard, New York,; E. Seguin, New York,; L. C. Lane, Cal.; J. D. Jackson, Kentucky,; A. J. Erwin, Mansfield, Ohio,; Geo. W. Burton, Mitchell, Indiana.

By Dr. Wm. B. Atkins, the following:—

Resolved, That a suitable die for a medal, with a likeness of Dr. N. S. Davis on one side, and the name and date of the organization of this Association on the opposite, be procured by this Association, and that hereafter one be furnished to each delegate on becoming a member.

The resolution was adopted, and Drs. Toner, Woodward and Keller appointed a committee to procure the die.

By Dr. A. M. Pollock, of Pittsburg, the following, which was adopted:—

Resolved, That a committee of fifteen be appointed by

the President of this Association, to confer with the committee appointed by the Philadelphia County Medical Society relative to the meeting of the American Medical Association in Philadelphia in 1876, and be required to report the result of their conference to this Association at its *next* meeting.

EXONERATED.

Dr. N. S. Davis, chairman of the Judicial Council, reported that Dr. W. H. Myers, of Fort Wayne, Indiana, was a physician in good standing and was exonerated from all charges preferred against him.

A RELIC.

Dr. Wm. Brodie, of Detroit, presented to the Association the original copper plate on which was engraved the cards of membership used when the Association met in Detroit in 1856.

On motion the plate was accepted and placed in the archives, and a vote of thanks tendered to Dr. Brodie for the valuable relic.

INTERNATIONAL ASSOCIATION.

On motion the following were appointed a committee to digest a plan for an International Medical Association: Drs. J. M. Toner, of the District of Columbia; N. S. Davis, of Chicago; Alfred Stille, of Pennsylvania; Austin Flint, Sr., of New York, and J. S. Billings, United States Army.

THE NOMINATIONS.

Dr. H. T. Byford, of Chicago, submitted the report of the Committee on Nominations, which, after various corrections, was adopted, as follows:—

The Committee on Nominations respectfully report that they suggest the following gentlemen for the various offices named:—

President—Dr. W. K. Bowling, Tennessee.

Vice-Presidents—Drs. William Brodie, of Michigan; J. J. Woodward, of United States Army; H. W. Brown, of Texas; H. D. Didama, of New York.

Treasurer—Dr. Casper Wister, of Pennsylvania.

Librarian—Dr. William Lee, of District of Columbia.

Committee on Library—Dr. Johnson Elliott, of District of Columbia.

Assistant Secretary—Dr. Will. Walling, of Kentucky.

Committee of Arrangements—Drs. Edward Richardson, Chairman; Lawrence Smith, Robert Gale, James Holland, Henry Bullit, J. M. Keller, D. W. Yandell, Lewis Rogers, R. C. Hewit, all of Louisville.

Committee on Prize Essays—Drs. J. D. Jackson, L. P. Yandell, J. A. Ochterloney, all of Kentucky; Theophilus Parvin, T. M. Stevens, both of Indiana.

Committee of Publication—Drs. F. G. Smith, Wm. B. Atkinson, D. Murray Cheston, Caspar Wister, Alfred Stille, all of Pennsylvania; William Lee, of District of Columbia; H. F. Askew, of Delaware.

Next place of meeting, Louisville, Kentucky.

Time of Meeting, First Tuesday in May, 1875.

RESIGNATIONS REFUSED.

Dr. William Brodie, of Michigan, offered the following resolution, which was adopted unanimously:—

Resolved, That, in view of the eminent services of Drs. Wister and Smith, we respectfully return to them their respective resignations, and insist that they shall continue in the performance of the duties of their respective offices.

At this juncture the Secretary announced the reception of the following telegram:—

CINCINNATI, O., June 5, 1874, 9.15 A. M.

Secretary of the American Medical Association:—

Dr. George Mendenhall, ex-President of the Association, died last night.

CHARLES MENDENHALL.

The reception of the telegram caused audible expressions of regret in all portions of the house, and a motion was at once passed requesting the President to ap-

point a committee to draft suitable resolutions in reference to the deceased.

SURGERY IN THE WEST.

A record of what the West has done for American surgery, by Dr. Paul F. Eve, of Nashville, Tennessee, was submitted to the Association by Dr. Brodie, who said it had been received by mail too late for reference to the proper section, the following extracts are from it

AMPUTATION AT THE HIP-JOINT.

"The first successful amputation, at this articulation, in America, and it may be the first successfully performed in civil practice the world over, was done by: Walter Brashear, M. D., of Bardstown, Nelson County, Kentucky, in August, 1806, the same year that the great American surgeons, Drs. Dudley and Mott, graduated in medicine. The patient was a boy of seventeen years; the method of operation, the circular, with incision over the trochanter major, to complete the disarticulation. After his recovery he went to St. Louis, Missouri, where he was a resident in 1846.

"At a public dinner given to Henry Clay, by the City of New Orleans, Dr. Brashear being also present, to a sentiment complimentary to this operation, the great Kentucky orator exclaimed: "Doctor, they have got you on the hip."

FIRST EXCISION OF THE CLAVICLE.

"In 1828 Dr. Mott published his case of excision of the clavicle for sarcoma, believing it at the time to have been the first operation of the kind ever performed. So formidable, too, did he consider it, that he subsequently called it his "Waterloo operation." Little did he suppose that here again he had been preceded by another Kentuckian, just as he had been in the hip-joint amputation, and it so happened by about the same number of years. The first successful excision of the entire clavicle ever achieved was done by Dr. Charles McCleary, of

Hartford, Ohio County, Kentucky, on the 4th of May, 1811, as reported by James H. Johnson, M. D., of New Orleans, Louisiana, in the *Medical and Surgical Journal*, of that city, for 1850. Dr. Gross, in volume 2, page 1078, of his *System of Surgery*, says it was done in 1813, and on a boy of fourteen years, for scrofulous caries of the right collar bone, who survived the operation many years."

OVARIOTOMY.

"To Dr. Ephraim McDowell, of Danville, Boyle County, Kentucky, is the world indebted for an operation now performed everywhere, to the saving of thousands of lives, heretofore condemned to a lingering death by an incurable affection. The cutting out of a diseased ovarium successfully was first done in the well known case of Mrs. Crawford, in Danville, December, 1809."

LITHOTOMY AND THE DUE PREPARATION FOR A CAPITAL OPERATION.

"Dr. Benjamin Winslow Dudley, late of Lexington, Kentucky, has confessedly done more with the roller and simple diet than any one who has practiced medicine. No surgeon, by these simple means, ever accomplished so much. It was reserved for him to teach the profession how to prepare a patient for a critical operation. He will long be known as the great lithomist of the nineteenth century. It has been said of him that he operated one hundred times in succession, for stone, without a death or failure.

"Here, then in a few words, is what a single Western State, Kentucky, has done for American surgery, and this, too, in a period of some thirty years. Can as much be said of any other, or even an approximation to it? It does seem most wonderful. First in amputation at the hip joint, first in excision of the clavicle, first in vaginal hysterotomy, first in lithotomy, Kentucky should henceforth be called the banner State for Surgery."

RESECTION OF THE INFERIOR MAXILLARY BONE.

"On the 6th of February, 1810, Wm. H. Deadrich, M. D., then a practicing physician in Rogersville, Hawkins County, Tennessee, removed nearly one-half of the lower jaw bone from a lad fourteen years of age, "without known precedent or professional counsel or aid." The patient fully recovered. This was the first operation of the kind ever performed, and was originally published in the *American Recorder*, of Philadelphia, then in "Gibsons's Surgery."

INTUSSUSCEPTION SUCCESSFULLY RELIEVED BY GASTROTOMY.

"In the *Pennsylvania Medical Journal*, 1865, republished in the *American Journal of Medical Science* the same year, is the report of a case of intussusception by Mr. W. W. Thompson, then a student of medicine, of an operation by John R. Wilson, M. D., on a negro man twenty years old, in December, 1831, then of Rutherford County, Tennessee. Other means having failed, seventeen days after obstinate obstruction in the bowels, the abdomen was opened by an incision two inches above and three below the umbilicus, when the ileum was found invaginated and threatened with mortification; was drawn out carefully and released; the wound then closed by sutures and plasters, when the patient soon voided the crude mercury he had taken the night before. He fully recovered. This was done as will be remembered, in the days of slavery, and but for which it would probably have never been attempted. So hazardous an operation in regard to diagnosis and result has not yet met with much encouragement by the profession."

CURATIVE TREATMENT FOR VESICO-VAGINAL FISTULA.

"It was while the distinguished J. Marion Sims, M. D., etc., was practicing medicine at Montgomery, Alabama, that he successfully introduced the method for relieving one of the most deplorable affections in the female sex.

He says himself, as if by inspiration, in the happy combination of the duck-bill speculum, silver suture and sigmoid catheter, he finally succeeded in permanently closing the fistulous opening between the bladder and vagina. The details of his operation were first published in the *American Journal of the Medical Sciences*, for 1852. His peculiar speculum has actually produced a new era in the treatment of female diseases."

SUCCESSFUL APPLICATION OF A LIGATURE TO THE BRACHIO-
CEPHALIC ARTERY.

"Of fourteen published attempts to ligate the arteria innominata, the only one which the patient survived occurred to Dr. Andrew Woods Smyth, of New Orleans, La. The operation was performed in the Charity Hospital in that city, on the 15th of May, 1869. Its success was attributed by Dr. Smyth, and no doubt correctly, to his trying also the right vertebral artery."

EXCISION OF THE ULNA AND RADIUS—THE USEFULNESS OF
THE LIMB PRESERVED.

"The operation of removing the entire ulna and radius except a small portion of the lower extremity of the latter, was first performed by Dr. Compton, in 1835, when he was connected with one of the medical colleges of New Orleans, and is published in the *Medical Register* of that city. Dr. Gross and Dr. Ashhurst admit it in their works on surgery, and it is found in my collection of "Remarkable Cases in Surgery."

EXTIRPATION OF A PORTION OF THE OS COCCYGIS FOR NEURAL-
GIA.

"The late Prof. Josiah C. Nott, M. D., of Mobile, Alabama, first excised part of the os coccygis for distressing nervous affection of the neighboring soft parts. This he did by removing two segments of this bone in 1843, of a lady patient of twenty-five years, who had been a great sufferer, and whom he partially relieved by

it. This is believed to be the first instance of such an operation. The case is published in the *New Orleans Medical Journal*, for May, 1844, and copied by the *American Journal of the Medical Sciences* for October of the same year."

SUCCESSFUL EXCISION OF SIX INCHES OF GANGRENOUS INTESTINE IN HERNIA.

"Dr. Charles A. Luzenberg, while in charge of the Charity Hospital of New Orleans, Louisiana, soon after his return from Europe, 1834, laid open a strangulated hernia, and finding the intestine completely mortified, did not hesitate to remove the dead parts, stitched the serous surfaces together, and the patient fully recovered in thirty-five days."

EXTIRPATION OF THE KIDNEYS.

"The first, and probably the only successful removal of the kidney performed in this country occurred in the practice of Prof. G. T. Gilmore, M. D., now of Mobile (Alabama) Medical College, during December, 1870, the patient, a negro woman, aged thirty-three, and she pregnant. Prof. Simon, of Heidelberg, as is well known, revived the operations on this organ by the successful result of his case of extirpation in 1870, while it may be true that Marchetti, an Italian surgeon, had practiced nephrotomy during the seventeenth century.

REMOVAL OF THE CRISTA GALLI FOR FRACTURE OF THE CRANIUM.

"This is believed to be the only case of the kind on record, and from the *Nashville Journal of Medicine and Surgery*, for 1852, has been extensively copied. It may be the only one in which this portion of the cranium was ever removed by an operation. On the 15th of December, 1854, the writer, assisted by the late Prof. John M. Watson and Dr. Conwell, still a practitioner of this city, relieved a patient who had been dashed out of a

buggy against a telegraph pole, he being drunk while his horse ran away with him. The os frontis was extensively fractured, the shock so great that his pulse fell to forty-four, and his breathing became stertorous. Twelve pieces of bone were elevated, the hemorrhage from the nose ceased, and the circulation rose to sixty-two. In one of the fragments removed the crista galli, with the foramen cæcum, are distinctly recognized."

Adjourned to meet at Louisville, Ky., 1st Tuesday in May, 1875.

Reviews.

CIRCULAR OF THE STATE BOARD OF HEALTH OF MICHIGAN. The Entailments of Alcohol, being the Annual Address of the President, H. O. Hitchcock, M. D., of Kalamazoo, Mich.

In this address, which is intended as a "frontispiece" to the report of the Board of Health, Dr. Hitchcock discusses the "Nature of Alcohol, its physiological and pathological effect upon the system, and finally the "entailments;" and answers the question, "what does the drunkard bequeath to his children?" As to its nature, the following extract shows what the Doctor's ideas are and appears at least sound:

"Alcohol is not a food. It forms no part of the fibrine, albumen, and casein, out of which all the tissues are organized, nor of the fat, starch, and sugar, which are chiefly used to generate heat in the body. Neither does it in any way aid in the digestion of the food; but on the contrary the presence of it in the stomach retards or impedes digestion by precipitating the active agent in that function, viz., the pepsine. These facts have been fully established by many eminent physiologists."

And again:

"The only influence of alcohol in the stomach,' says Dr. Henry Munroe, of England, 'is that of an irritant.'"

As to its physiological action :

"Alcoholic liquors, applied to the skin or mucous membrane, produce various degrees of irritation, even to inflammation and death of the part, according to their strength and the length of time they are applied. 'Alcohol, when applied to the living issues,' says Carpenter, 'in a sufficiently dilute form exalts for a time their vital activity, but this exaltation is temporary only, and is followed by a corresponding depression.' It is a stimulant and narcotic."

The amount of money spent each year for each person in the United States, he places at \$200.

As to the pathological effect, we extract the following from Dr. Aitken, which is endorsed by the author :

"'When spirituous liquors are taken into the stomach,' says Dr. Aitken in his 'Practice of Medicine,' 'they tend to coagulate, in the first place, all albuminous articles of food or fluid with which they come in contact. As an irritant they stimulate the glandular secretions from the mucous membrane, and ultimately lead to permanent congestion of the vessels and to thickening of the gastric tissues.'"

Its effect in producing "fatty degeneration" of blood and tissue upon the nerves, system and brains, together with the protean ills of "chronic Alcoholism," are noticed in full. The doctor believes in "total abstinence" as the only remedy for the curses entailed by alcohol, favors inebriate asylums, and "shows up" the composition of various patent medicines, bitters, etc., as being composed of cheap whiskeys and villainous wines.

Dr. Kedzie gave the following analysis of two specimens of "bitters:"

"LANSING, February 4, 1874.

"H. O. Hitchcock, M. D., Pres't State Board of Health:

"DEAR DOCTOR: I have examined a bottle of 'Drake's Plantation Bitters,' and find it contains $36\frac{1}{2}$ per cent. of alcohol. I have also examined a bottle of 'Hostetter's

Stomach Bitters,' and find it contains $40\frac{1}{2}$ per cent. of alcohol.

Very respectfully,

R. C. KEDZIE,

Member of State Board of Health."

Altogether it is a paper of much value.

EXTRACT FROM A REPORT ON THE HISTORY OF THE SURGERY OF TENNESSEE, comprising the subjects of Stone in the Bladder, Ovarian Tumors, Vesico-Vaginal Fistula. Made to the Tennessee State Medical Society, April 3, 1872, by Wm. T. Briggs, M. D., Professor of the Principles and Practice of Surgery in the Medical Department of the University of Nashville. From the Nashville Journal of Medicine and Surgery.

What is here written has been before the profession the past two years, but in its present pamphlet form will be noticed and read by many who have heretofore never seen it. Much of interest will be found here. We will extract a portion relating to a famous case of "False Ovarian Tumor," with operation for the same, which, although it has no doubt gone the rounds of the medical profession ere this, will bear repetition. The extract will be found in our miscellaneous columns.

WRITERS' CRAMP, OR SCRIVENERS' PALSY--By R. A. Vance, M. D., New York. Reprinted from the Boston Medical and Surgical Journal.

Dr. Vance has contributed several valuable articles to medical literature. The present one on the annoying trouble mentioned, is in keeping with the rest. In the treatment the Doctor seems to rely upon hypodermic injections of atropia and strychnia, as the following receipt will show:

"In three of the remaining four cases the hypodermic injection of atropia was the sole remedy employed, and in the other, atropia, at first alone, but subsequently conjoined with strychnia, was used in the same manner.

"The following is a convenient formula:

R Atropiæ sulphat., gr. j.;
Acid. sulph. dil., q. s.;
Aquæ ad. 3 j.;

M. Dose, one minim.

ELECTROLYSIS IN THE TREATMENT OF STRICTURE OF THE URETHRA—By Robert Newman, M. D., Permanent Member of New York State Medical Society, etc. Reprinted from Dr. Beard's Archives of Electrology and Neurology for May, 1874. T. L. Clacher, 107 East Twenty-Eighth Street, New York.

The author says—

“All the strictures of the urethra intrusted to my care during the last few years have been treated exclusively by electrolysis. The results from this system of treatment have been very gratifying to me, and particularly so to my patients, who were kept under observation for some time after the operation. None were suffered to relapse, and the cure has been in every instance permanent. Such clinical facts seem to warrant more than a passing notice in the records of successful surgical operations.”

Which certainly is encouraging. As to the action of electrolysis in such cases, he tells us that—

“The specific action produced by electrolysis in the treatment of stricture has received different names. Dutrieux calls it galvano-chemical cauterization. Dittel names it a chemical galvano-caustic. I wish to add my mite, hoping to help in removing the obscurity in which the action of electrolysis is still concealed underneath technicalities of scientific phraseology. My experience of its action, after observing it minutely in all its known relations, leads me to name this electrolytic action, ‘galvano-chemical absorption,’ as I depend mainly on the chemical decomposition caused by electrolysis.”

OPHTHALMOLOGY AND OTHER MODERN SCIENCES—By T. P. Wilson, M. D. Together with the First Annual Report of the Cincinnati Eye and Ear Institute.

The first part of this pamphlet is a very turgid article, with far-fetched attention to Ophthalmology, the greater part of which is a rehash of the “wave” theory of light; the latter part purporting to be the report of an eye and ear infirmary, enters into a tirade against what the editor terms Allopathy and a eulogy of Homœopathy. 'Tis strange that Homœopathics cannot at least write common sense in a historical sketch.

ANNUAL REPORT OF THE SUPERVISING SURGEON OF THE
Marine Hospital Service of the United States, for the fiscal year 1873.-
 John W. Woodworth, M. D.

This is a valuable statistical work, that should be kept for reference. Toward the close several interesting cases are reported—one a double diaphragmatic rupture and hernia, by Thomas T. Minor, M. D., of Port Townsend, W. T.; the second, cases of urethral stricture, by C. N. Ellenrood, M. D., of San Francisco, Cal.; third, a paper on the "Sailor and Service at the Port of New York," by H. Smith, M. D., New York; fourth, report on the River Boatmen of the Lower Mississippi, by O. Smith, M. D., New Orleans, La.

ON INTRO-UTERINE FIBROIDS—By T. Marion Sims, M. D., Sur-
geon to the Women's Hospital of the State of New York. Reprinted
from the New York Medical Journal.

This is a collection of cases of uterine fibroids, coming under the observation of the author. A just tribute is paid Drs. Atlee and Peaslee, Meadows and Thomas, for their work in this direction, and their contribution to the literature of the subject. Also mention made of the work of M. Peans, on removal of fibroids by gastrotomy. Altogether it is a valuable contribution upon the subject mentioned.

A TREATISE ON PHARMACY—A Text Book for the Student, and
a guide for the Physician and Pharmacist; containing the official and
many unofficial Formulas, and numerous examples of extempora-
neous Prescriptions. By Edward Parrish, late Professor of Theory
and Practice of Pharmacy in the Philadelphia College of Pharmacy.
 H. C. Lea, Philadelphia. Cathcart & Clelland, Indianapolis.

This is the fourth edition of this well known work. Certainly every Pharmacist should possess it; and it is a valuable addition to the Physician's library.

OLD AND NEW. Conducted by Edward E. Hale. Published monthly.
 Boston. Roberts Bros. 143 Washington street.

A first class literary magazine.

HISTORICAL SKETCHES OF THE MEDICAL COLLEGES AND
Hospital, Law School, and Dudley Observatory. From Munsell's
Historical Collection of Albany.

BELLEVUE HOSPITAL MEDICAL COLLEGE, NEW YORK CITY.
Annual Circular and Catalogue. 1874-75.

CHARITY HOSPITAL MEDICAL COLLEGE OF NEW ORLEANS
Term 1874-75. D. W. Bicknell M., D., Dean. P. O. Box 1078.

MEDICAL COLLEGE OF OHIO, CINCINNATI, O. W. W. Seely
Dean.

UNION UNIVERSITY CIRCULAR AND CATALOGUE OF THE
Albany Medical College, 1874. Albany, N. Y.

Editorial.

CONGRESS AND THE MEDICAL CORPS OF THE ARMY.

SECTION 1. That the Inspector-General's Department shall consist of one colonel, two lieutenant colonels, and two majors, with the rank, pay and emoluments of officers of said grades; and the Secretary of War may, in addition, detail officers of the line, not to exceed four, to act as assistant inspectors general: *Provided*, that officers of the line detailed as acting inspectors general shall have all the allowances of cavalry officers of their respective grades; and no new appointment shall be made in the Inspector General's Department until the number of inspectors general is reduced to five.

SEC. 2. That the Bureau of Military Justice shall hereafter consist of one Judge Advocate General, with the rank, pay and emoluments of a brigadier general; and the said Judge Advocate General shall receive, revise, and have recorded the proceedings of all courts martial, courts of inquiry, and military commissions, and shall perform such other duties as have been heretofore performed by the Judge Advocate General of the Army. In the corps of judge advocates no appointment shall be made as vacancies occur until the number shall be reduced to four, which shall thereafter be the permanent number of the officers of that corps.

SEC. 3. That hereafter there shall be three assistant commissaries general of subsistence, with the rank, pay, and emoluments of lieutenant colonel, instead of the two now allowed by law of said grade in the Subsistence Department; that the number of commissaries of subsistence, with the rank, pay, and emoluments of a captain of cavalry, is hereby reduced to twelve, and no appointment to fill a vacancy in said grade shall be made until the number thereof shall be reduced to twelve; and the number thereafter shall remain fixed at twelve.

SEC. 4. That the Medical Department of the Army shall hereafter consist of one Surgeon General, with the rank, pay, and emoluments of a brigadier general; one assistant surgeon general, and one chief medical purveyor, each with the rank, pay, and emoluments of a colonel; and two assistant medical purveyors, with the rank, pay, and emoluments of lieutenant colonels, who shall give the same bonds which are or may be required of assistant paymasters general of like grade, and shall, when not acting as purveyors, be assignable to duty as surgeons by the President; fifty surgeons, with the rank, pay, and emoluments of majors; one hundred and fifty assistant surgeons, with the rank, pay, and emoluments of lieutenants of cavalry for the first five years' service, and with the rank, pay, and emoluments of captains of cavalry after five years' service; and four medical storekeepers, with the same compensation as is now provided by law; and all the original vacancies in the grade of assistant surgeon shall be filled by selection by competitive examination; and the Secretary of War is hereby authorized to appoint from the enlisted men of the army, or cause to be enlisted, as many hospital stewards as the service may require, to be permanently attached to the Medical Department, under such regulations as the Secretary of War may prescribe. And the number of contract surgeons shall be limited to seventy-five on or before the first day of January, in the year 1875; and thereafter no more than that number shall be employed.

SEC. 5. That the Ordnance Department shall consist of one Chief of Ordnance, with the rank, pay, and emoluments of a brigadier general; three colonels, four lieutenant colonels, ten majors, twenty captains, sixteen first lieutenants; and all the vacancies which may hereafter exist in the grade of first lieutenant in said depart-

ment shall be filled by transfer from the line of the army: *Provided*, That no appointment or promotion in said department shall be hereafter made until the officer or person so appointed or promoted shall have passed a satisfactory examination before a board of ordnance officers senior to himself.

SEC. 6. That no officer now in service shall be reduced in rank or mustered out by reason of any provision of law herein made reducing the number of officers in any department or corps of the staff.

SEC. 7. That as vacancies shall occur in any of the grades of the Ordnance and Medical Departments, no appointments shall be made to fill the same until the numbers in such grade shall be reduced to the numbers which are fixed for permanent appointments by the provisions of this act; and thereafter the number of permanent officers in said grades shall continue to conform to said reduced numbers; and all other grades in said Ordnance and Medical Departments than those authorized by the provisions of this act shall cease to exist as soon as the same shall become vacant by death, resignation, or otherwise, and no appointment or promotion shall hereafter be made to fill any vacancy which may occur therein.

SEC. 8. That so much of section 6 of an act entitled "An act making appropriations for the support of the army for the year ending June 30, 1870, and for other purposes," approved March 3, 1869, as applies to the Ordnance, Subsistence, and Medical Departments of the Army be, and the same are hereby, repealed: *Provided*, That this section repealing said section shall not apply to any of the grades of the Medical or Ordnance Departments which are omitted or abolished by the provisions of this act.

Maniacs are common; it does not take a legally recognized lunatic to be affected in this way. The seeming sensible man, who can reason on frauds and cyclones, credit mobiliers and earthquakes, with equal wisdom, may run wild upon some or any subject—without a spark of common sense to guide him and recognizing no principle to control him. Congressmen are even thus affected, and no better example could be given than

the passage of the above bill just before the close of the last session. With their heads full of economical ideas, spurred on by the public howl about expenditures, etc., and by a desire to excel in indication of their zeal, without a thought, or question, or a clear idea, as to what was right, they cut down the number of surgeons in the army from about sixty to fifty, thereby lessening and almost abolishing the dream of promotion from assistant to the rank of surgeon. When such men as Drs. Woodworth and Otis—names well known in the profession both of this country and Europe—are still for an indefinite period to be left as assistant surgeons, we can have some idea of the appreciation the medical men of worth and energy are held in by the sapient Congressmen. The only charitable inference is that they are wholly in ignorance of the natural tendency of this bill, or the wrong it will continue to entail upon the medical corps of the army. But this excuse fails when we remember the hundreds, nay thousands, of names from local and State societies, and from the American Medical Association, that were presented them, portraying the ill effect produced by any such a bill as the above, and praying for something different. With a grand indifference, peculiar to those affected with capus magnum, or the mania of conceit, the numerous petitions were wholly ignored, and what was petitioned against passed with haste.

The profession must continue its work, hoping they may meet with men of more liberal sentiment and sounder views in the next Congress.

Messrs. Burtin and Armstrong, Manufacturing Pharmacists, of Terre Haute, Ind., presents to the profession a book of formulas of their leading preparations, mostly elixirs, syrups, wines, etc. We understand that they have met with the approval of those physicians who

have used them. We have now, we believe, three establishments of this nature in the State—Lilly & Phe-lan, of Evansville, Lilly & Johnson, of Indianapolis, and the firm just mentioned in Terre Haute. There is room for all, and we hope all will succeed in proportion as they deserve..

Here is the way they protected the person, family and estate of those who were addicted to the flowing bowl in in. Michigan Territory about the year 1827 :

“Whereas, To the dishonor of human nature and the great injury of society, individuals oftentimes spend, lessen or waste their estates by excessive drinking, gaming, idleness and debauchery, and thereby involve themselves and families in distress, misery and ruin, and subject the counties or township to which they belong to expense and charge for the maintenance and support :

“*Be it therefore enacted*, That when any person, by excessive drinking, gaming, idleness, or debauchery of any kind, shall so spend, waste, or lessen his or her estate as thereby to expose himself or herself, or his or her family, or any of them, to want, or suffering circumstances, or shall by thus spending, wasting, or lessening his or her estate, endanger or expose the county or township to which he or she belongs, in the judgment of the overseers of the poor of the township, to a charge or expense for the maintenance or support of him or her, or his or her family, or any of them, the overseers of the poor of the township, or a major part of them, shall in such case lodge a complaint with the judge of probate of the county to which the person spending, wasting, or lessening his estate, as aforesaid, doth belong ; and if it shall appear to the said judge of probate that the person complained of comes within the description of this act, and has had due notice of the complaint exhibited against him or her, as the case may be, then and in that case the said judge of probate shall appoint the overseers of the poor, or other suitable and discreet person or persons, guardian or guardians to such person, and no sale or bargain of any personal or real estate, made by such person or persons, after the appointment of guardian-

ship, as aforesaid, shall be held valid in law; and the guardian or guardians that may be thus appointed shall, in discharging the duties of their appointment, pursue the same method and be under similar obligations for a faithful discharge of their trust, as guardians appointed for lunatics, idiots, or for persons *non compos mentis*."

And here is what drunken doctors might expect:

"Upon complaint in writing, filed with any county medical society, charging any practitioner of physic or surgery within such county with having been guilty of infamous crimes, habitual drunkenness, or with gross ignorance and incompetence, every such medical society, at a regular meeting thereof, may proceed to investigate such charge or charges; and if, upon such investigation, and due proof of the facts so charged, the person complained of shall be found guilty, by a vote of two-thirds of all the members present, then such medical society is hereby authorized and empowered to suspend such person from the practice of physic and surgery; and the person so suspended shall, if he continue to practice physic and surgery within this Territory, during the time of his suspension, be subject to all the penalties and disabilities imposed by the ninth section of this act upon persons who shall practice physic or surgery without being regularly licensed."

WE are pleased that we can without mental reservation recommend to the profession of the country the various medicinal compounds, manufactured by the firm of Lilly and Johnston of Indianapolis. We have had more experience with their Sugar Coated Pills than any other articles; these we pronounce reliable and of good finish. The Physicians will not be disappointed in the use of them.

WE call attention to the advertisement of the College of Physicians and Surgeons, found in this number.

Miscellaneous.

OPERATION FOR OVARIAN TUMOR.

The patient being placed upon the table, and all things ready, the crowd gazing in agony of expectation, the surgeon selected a burnished scalpel, (his hand being ungloved for the occasion), and holding it between the sun and his eye, said to his assistant, in an under tone, "To hold it like a pen is axiomatic; it gives the digital apparatus perfect control of it. In its achievements, indeed, it may be compared to a pen. That little instrument, controlled in its movements by genius and cultivation, secures immortality. But it is either posthumous, or dimly mingles with the lengthened shadows of the sunset of life. This, under the guidance of science, secures it in the fresh morning of existence."

An assistant being now appointed for each extremity, and the patient exhorted to be firm and courageous, the surgeon proceeded dexterously to divide the integuments from the umbilicus to the symphysis pubis. A few more strokes of the scalpel in the direction of the linea alba exposed the surface of the enormous tumor. It was remarkably smooth and polished, and there were noticeable irregular movements in it, difficult, at first, to account for.

"Better not go on," said the assistant.

The wound was closed with sutures and adhesive strips; "and a compress and bandage completed the dressing," as surgeons say.

About three o'clock P. M., on that same bright June day, *two* horsemen might have been seen threading their way, tandem, through an unbroken forest, in the direction of Haysborough. Not a word had been spoken since they mounted their horses, though several miles

had been passed over. Overton was the first to break silence. "Doctor," said he, "did you never notice that every thing, as well as diseases, runs in families? Now this woman's father was always being tricked, or tricking some one else. Staggering about through fields, behind his forked stick, or divining rod, looking for mineral water, and gold and silver mines, and finding nothing but disappointment. And here is the daughter, with a stout husband, and the mothers of three children, such an infernal fool as not to know that she was with child, but deliberately turns herself up to be split open in the gaze of the multitude. The whole seed, breed, and generation of them, are tricksters all; and now they have played me a h—— of a trick. Do you suppose Haysborough would support a lawyer? Nashville is as full as a tick of attorneys and counsellors; and preaching, even if one could hold his tongue between sermons, won't pay."

This unfortunate case terminated Dr. Overton's career as a medical man. "I did not," said he to the author, "retire from the practice; I was victorious even in defeat. The practice retired from me, and left me in triumphant possession of the field."

He always insisted, moreover, that his operation conferred a great boon upon science, but that the medical asses of his generation were too stupid to avail themselves of it. That before his operation, obstetricians were perplexed to determine the quantum of force yielded by the abdominal muscles in the parturient effort. "Now," said he, "my patient was delivered of a healthy, living child, a few days after the operation, by the uterine effort alone, for as to the abdominal muscles in that case, it is very clear that *I had fixed them for slow traveling.*"—*History of Tennessee Surgery.*

THE CASTRATION OF WOMEN.

Dr. BATTEY, in the *Atlanta Medical and Surgical Journal*, December, 1873, gives an interesting account of this operation, as practiced among the sect of Scoptzi, in Roumania :

Not men only are submitted to this operation, but also women, who take the name of "*Scopcichi*." The operation, with women, applies to the breasts and to the genitals. Sometimes their breasts are entirely cut off; sometimes only the nipples are cut, burned, or corroded; sometimes they cut out only the glands from under the breasts, especially from under the left breast.

At the genital parts they cut the clitoris, the labia, minor, and sometimes the labia major. Such mutilations, however, do not in reality produce the same effect as the removal of the testicles of the male. *The real castration, with women, could be effected only by the removal of the ovaries;* but this operation is considered by modern physicians, if not altogether impossible, at least dubious.

Learned medical men, however, affirm that the cutting of both breasts is almost equal to real castration, for the breasts being in close connection with the womb, their absence must deprive women of the faculty of conception and concupiscency at the time of cohabitation.

This is said to be confirmed by the fact that the so mutilated women are commonly distinguished in their outward appearance by the same deformity, faded complexion, and want of elasticity and spirit, in the very bloom of their lives, as with the male castrated. All other mutilations of women are not real castrations, if they leave them the faculty of cohabitation and pregnancy.

Generally the mutilated women have a yellow, wrinkled complexion, small breasts, etc. This cannot be examined by their abstinence; there have been observed cases of great corruption of these women. None of

them, however, gave birth to children. It is, therefore, to be suspected that they cohabit with the Scopetz, who have not the "imperial seal," and from this unnatural and unsatisfied irritation springs their state of weakness and infirmity.

Old Scoptzi affirm that the castration of women is a novelty of Moscow, introduced at St. Petersburg at the time of the second "seal" for men in 1816. Budilin asserts that the castration of women has two degrees; the first being the injury of the womb, and the cutting of the clitoris; the second, the removal of the breasts, which is done by instruments having the shape of a knife and fork.

In Bucharest there are two hundred Scopetz, who are principally engaged in driving public vehicles, which they own. They appear to love horses, having the best and swiftest, and driving like demons. They have also a passion for hoarding money. They are all well-to-do. They are of a pale yellow complexion and grave-like visages. A short time after their castration their beards fall out, and their voices change to the thinnest feminine key. They are all of Russian birth or extraction; and as their numbers die out, they appear to import others in their place.

I have not yet been successful in discovering whether they now castrate their women; they will not speak upon the subject for love or money. In Jassa, however, there was recently a case before the courts, prosecuting some of the sect for cutting off the breasts of a young woman, whom, it was claimed, they had converted. Before they are castrated they are permitted to marry and have one child; then they are worked upon by the fervor of religious zeal, until the act is performed.

Dr Hays

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Original Communications.

PYÆMIA.

BY E. C. WHITE, OF LA GRANGE.

Read before the N. E. Indiana Medical Society at Ligonier, December 30th, 1873.

What is pyæmia? it is defined as the development of multiple abscesses in some of the internal organs. The term is a corruption of the term pyohæmia, and is synonymous with ichorrhæmia, a term more recently introduced in pathological nomenclature. The literal meaning of the term pyonemia is an alteration or poisoning by pus.

The exciting cause of pyonemia or blood poisoning, are numerous; any cause producing a severe shock to the system, such as excessive loss of blood, amputation of the larger limbs, gun-shot wounds of the head or larger articulations, gun-shot fractures and the severe forms of railroad accidents. It has supervened in erysipelas, and may occur with lying in women.

Gross says, to it may be attributed much of the mortality occurring in the puerperal state. As found in army hospital practice, it, perhaps, was more frequently found

following gun-shot wounds of the more important articulation, and amputations of the thigh. Its approach is insidious and stealthy, the wound or stump to all appearances doing well, and healing kindly; the first indications of trouble being a severe rigor, followed by flashes of heat, which are quickly followed by a rapid, feeble and variable pulse, and a dry, dark tongue. The rigors coming on at intervals of from two to twenty-four hours alternating with exacerbations of fibrile excitement. The appetite soon fails, and the system soon succumbs to the poison. The entire body soon presents a general ichtoroid appearance; the tongue becoming darker, red at the tip and edges, with an accumulation of sordies upon the lips, gums and teeth. Frequently the patient sinks into a state of coma from which he never awakes. But, in some instances full consciousness is retained until almost the last. In short, there is a general typhoid condition.

The question naturally arises, is pus absorbed from the seat of injury? One class of pathologists contend that it is. But physiology teaches us that healthy pus cannot be absorbed, and pass through the capillaries into the circulation, and, although they assert that they have seen the pus globule in the blood, doubtless they have taken the white corpuscles of the blood for pus globules, between which it is difficult if not impossible to distinguish; nor is it probable that pus is taken up by the open mouths of the cut veins, for they are glued together and entirely closed before separation has taken place. I can conceive of no instance in which this might occur, except an abscess be opened in the immediate neighborhood of one of the larger veins during an operation. But may it not be that disintegrated, sanious pus is absolutely poisoning the blood, and disposing to the formation of multiple abscesses found in the several organs, or inflammation may be excited in the coats of the injured veins, and this phlebitis be in fact, the ex-

citing cause; the inflammatory process going on to the stage of supuration; and pus thus carried into the circulation, to become points of irritation wherever deposited in the net work of the capillaries, thereby exciting inflammation of its parts, resulting in supuration, and the formation of multiple abscesses. I am, however, of opinion, that every instance wherein *Pyæmia* arises, the pus will be found sanæous, icherous and disintegrated. That it never supervenes in cases where the pus is healthy and well elaborated, at least, not in such cases, if free vent is given the discharge so there can be no bagging or burroughing of pus among the muscles. If this burroughing be allowed, the pus must become unhealthy in character, disintegrated, and of course, liable to absorption, and every hour it is allowed to remain but enhances the danger; and if once embedded among the muscles is very difficult to remove so entirely as to have the patient in a condition of safety.

The post-mortem appearances, as might be expected, are numerous and interesting, the most common being the purulent deposits, or multiple abscesses. These are found most frequently in the lungs and liver, next in the spleen, less frequently in the heart, brain and kidneys. The deposits may take place in the pelvic and peritoneal cavities, and have been found in the prostrate gland. The number of these multiple abscesses vary widely, from five or six to many hundreds. Gross mentions a case in which there was a thousand. I have seen cases where there were several hundred studding the lungs. The size varies with the number, being smaller when very numerous, and large when few in number. In size they were from a millet seed to a good sized orange; and when numerous often become confluent. The contents of these abscesses are not usually of the character of well elaborate pus, but is grayish in color, having somewhat the appearance of the gray matter of the brain; and in consistency, is frequently similar to partially soft-

ened tubercular matter. I have observed in every case I have examined the uniformity of pleuritic adhesions; sometimes evidently of recent origin over one lung, and over the other so fine, as to be almost impossible to separate it without tearing the substance of the lung, and I think the abscesses, as a rule, were more numerous in the lung the most firmly adherent. Pus is also found intermingled with fibrinous clots. The cadaver, I believe, always presents an ichtoroid appearance; the conjunctivæ deeply colored, and the skin being of nearly a golden yellow, tinged with green. This ichtoroid appearance is more prominent after than previous to death. The blood is found to be thin and aqueous, evidently robbed of its coloring matter, so much as scarcely to stain a cloth and seemingly having lost all plasticity and power of coagulation.

The prognosis in Pyæmia is extremely unfavorable, recovery being rare, and in these the convalescence is very slow and tedious, the least exposure or indiscretion in diet causing a relapse. The system is also more than usually liable to attacks from other diseases, to which it rapidly yields in its already debilitated condition.

The treatment of Pyæmia is sustaining, tonic and stimulating. Beef-tea, brandy in milk-punch, wines, wine-whey, or the more diffusable stimulants as carbonate of ammonia, liquor ammonia, quinine, iron, &c. Quinine when given should be in full doses, not less than x. grs. at once, combined with sufficient morphia to produce a full anodyne effect. To give it in small frequently repeated doses but teases the system and aggravates the symptoms. By putting the patient at once under the full influence of the remedy, rest and quietude are obtained, and opportunity given nature to rally from the depressing influence of the poison. I think the preparations of iron to be preferred are, the chlorinated tincture and the sulphate, not only for their tonic but antiseptic powers. The utmost cleanliness should be observ-

ed, the wound being frequently and thoroughly cleansed, not only giving free vent to all discharges, but the parts should be thoroughly washed out, or even by means of a syringe, if necessary for their removal. The clothing and bedding should be changed at least daily, and the fresh clothing well aired and dried before use. All dressings should be removed at once from the bed-side. Free and full ventilation is absolutely essential. The diet should be light, nutritious and easily digested. Beef-tea, light boiled eggs, milk, chicken-broth, meat-broths, of which mutton is perhaps the best, and jellies. The thirst is usually intense and urgent, but the patient should avoid large draughts of water, for it over-loads the stomach and no doubt interferes materially with the action of remedies, and obstructs the free digestion of the little nourishment which the patient is able to take. Great relief may be obtained by swallowing small pieces of ice; even holding them in the mouth and allowing them to dissolve there, will often give decided relief.

Editor of the Indiana Journal of Medicine:

A correspondent in the Cincinnati Clinic from this city under date of July 26th, startles my credulity and over-awes my comprehension, by the magnitude of his enormous conceptions, when he proclaims to the Clinic, "that Indianapolis, my own quiet, unassuming city, where I have spent so many years of professional toil, where I have so long labored, hoped and prayed for higher attainments and better ability," has "in the twinkling of an eye," become an overgrown literary metropolis, a great "medical center," as a result of which lofty spires and glittering domes of stupendous college edifices are to rise in our midst, swelled out with monstrous halls, gorgeous lecture rooms, splendid museums, libraries and laboratories, endless clinics, squares of hos-

pitals, with innumerable wings, and provided with wards stocked with patients from all parts of the globe, where every morbid manifestation to which our humanity is heir, is to be explored, demonstrated and treated under the direction of countless learned professors from city, town and country, in endless profusion. That every Doctor in the State is now liable to be honored at any moment with a professorship. Even poor Junius is not exempt from this consuming desire for greatness, provided his vast dimensions can be cramped within so modest a jurisdiction. Had he been consulted, measured, weighed and estimated, in due time, we apprehend that the Clinic would have had no Junius, and you no Permian. Such an act would have saved me from the desperate dread that shatters my quietude. It is more than my feelings can tolerate to think of looking for myself beneath the accumulated and cumbersome responsibilities of a professorship. I know I could never be found among such men as Junius; no magnifier on earth could get down to my dimensions.

These are not all of the assertions before which I stand accused, and to which I must plead for myself and brethren not guilty. That is, that the Doctors of this city are torn with discension, disrupted with bickerings and all-pervading discord; that each member of the profession in the State is taking sides with the claimed preference of one of the medical schools of this city, and that there is no harmony in any of our relations. It must have caused Junius much effort to evolve such a quarrelsome result, to proclaim such a disastrous condition. Had he not ascended beyond the sphere of observation he might have discovered within this city, and within our State, a united professional brotherhood, whose united effort is to advocate the common interests of the profession, to elevate the standard of acquirements. That there is a well cultivated contempt for the empty honors of an unmerited position, for mere sounding titles; that

there is no desire on the part of the profession to build up any school in this city which shall be in any way beneath the highest standard of practical usefulness; that we are willing to labour with our schools with the hope to make one or both of them first class schools; if that cannot be done, let one or both be consigned to the tombs of the capulets. Let them compete for their honors, and we will sit as umpires over them, and decide upon their claims to perpetuity. Let Junius gather around him a quiet disposition, and take something to improve his candor and truthfulness, and we think he will feel better.

PERMIAN.

Reviews.

CONTRIBUTIONS TO THE STUDY OF YELLOW FEVER—

A.—The Distribution and Natural History of Yellow Fever in the United States; with Chart showing Elevations of Localities where it has appeared from A. D. 1668 to A. D. 1874, by J. M. Toner, M. D., Washington.

B.—Yellow-Fever Epidemic of 1873; Reports from Medical Officers, U. S. Marine-Hospital Service, with Note by the Supervising Surgeon, John M. Woodworth, M. D.

We give the following extracts from this valuable little work:

“The influence upon localities of elevation above the sea-level, with the exemption from yellow-fever they seem to thence possess, is the view we here wish to call to the attention of sanitarians and of the profession.

“The conceded home of yellow fever is in the West Indies and the Bahamas, with a portion of the adjacent continents of North and South America. A square formed by the forty-fifth and one hundredth degrees of longitude, and the thirty-fifth north and the fifth south latitude, will include the favorite region of this disease.

“Although originating within the square named, his-

tory shows that it may prevail on the sea-coast in any locality within the tropics, north and south of the equator, where malarial fevers prevail, and the daily average of the thermometer is over 75° or 80° with a high dew-point for weeks or months together.

"If these latter conditions, however, were the only ones necessary to the development of this disease, it should prevail much more widely; for they exist, during parts of the summer at least, in almost all of our Atlantic cities, as may be seen by reference to the record of temperature as shown by the admirable isothermal maps in Lorin Blodgett's *Climatology*.

"Yellow fever does not prevail in the East Indies nor in China. It has appeared in most of the maritime cities of the United States on the Atlantic coast, as far north as Boston, and indeed has been chronicled at Quebec and Halifax. But while it is true that it has thus visited many of the cities and towns on the sea-coast, it has, fortunately, never extended far into the interior of our country.

"In the United States, it seems to prevail in the large sea-ports and in localities along the navigable water-courses having outlet in the Gulf of Mexico. Dr. Drake, many years ago, observed that while the disease had appeared at almost every town on the Mississippi, as far up as Vicksburgh, that Woodville, twelve miles from the river, was the most remote inland point it had reached.

"It has been observed that its epidemical limits coincide with the range of the growth of the live-oak, the cypress, and the long mosses. Certainly the regions of our country most frequented by this disease are particularly low and flat, with numerous rivers and much marsh and swamp lands, as may be inferred from the localities and their elevations marked on the map.

"Yellow fever has been considered by nearly all writers a distinct disease from the autumnal remittent fevers of the temperate zone. All agree that it is indigenous at Vera Cruz on the Gulf of Mexico.

"Protracted average high temperature is a constant factor there, but this of itself is deemed insufficient. The time has, perhaps, not come, if it ever does, for the discovery of all the elements entering into its development.

"As we have already stated, the conditions of long-continued heat, averaging over 75° throughout the twenty-four hours, and great humidity exist almost constantly during the summer in the Gulf States. Occasionally during the summer season, for months together, this condition of high temperature, but with less moisture, may exist in many of the coast cities of our country, as far north as Boston, and yet rarely ever are these cities visited by this disease in an epidemic form.

"Is the exemption of these more northern cities due alone to climatic conditions, or are they in part exempted by sanitary and quarantine regulation? Yellow fever is almost annually reported on vessels at the quarantine stations, where it is fortunately arrested and prevented from entering the cities."

URETHROTOMY—External and Internal combined in cases of Multiple and Difficult Stricture; with remarks on the Urethral Calibre. By Fessenden N. Otis, M. D., Clinical Prof. of Venereal Diseases in the College of Physicians and Surgeons, New York.

This is a description of two cases of Stricture of the Urethra, one case having fourteen Strictures. After the description come a general review of some of the most salient points, with remarks and conclusions. We give some extracts referring to the normal size of the Urethra and true course of treatment:

"One of the chief stumbling-blocks in the way of the surgeon in recognizing urethral stricture is the contracted meatus. Authorities concur, as a rule, in asserting that the meatus is the *narrowest portion of the urethral canal*, and yet this is usually accepted as a *test* of its calibre. This opening is subject to great natural variations, in organs of about the same general proportions. The well-developed penis, in a dozen cases, may vary in regard to the size of the congenital meatus, from the calibre of No. 8 or 9 millimeters in circumference, to 32 or 34. It is important to recognize the fact that the meatus bears, necessarily, *no* proportion to the actual size of the urethra. If symptoms of stricture are present, such as *persistent urethral discharges, etc.*, or if any chronic irritation of the genito-urinary apparatus is present, the meatus should be freely incised, and a thorough examination of the canal with the bulbous sounds should be made.

"The normal meatus urinarius is well represented by Henle, who has been more minute and definite in his anatomical researches in regard to it than any anatomical authority with which I am familiar. Thus, as the accompanying plate represents, there is no abrupt enlargement after passing the external border, such as is seen in the usual representations of the urethra, and in his description he is entirely at variance with those who claim that a sort of sphincter is found at the meatus. There are no *circular* muscular fibres entering into its composition—simply horizontal muscular fasciculi, or plates, as he terms them, which surround the opening, and are continuous with the muscular structure of the urethra.

"Returning to the case of aggravated multiple stricture above related, it will have been observed that notwithstanding the easy passage of a No. 31 solid steele sound, through the entire urethra, after the operation, there was an *immediate tendency to recontraction*; that within a comparatively short period, the presence of stricture was again definitely recognized. Some even going so far as to state, as does Mr. Wade (quoting the illustrious Dupuytren,) that, "whatever care may be taken in the dilatation of strictures, *the dilatation is but temporary in the greatest number of persons, and the contraction has always a tendency to return.*" Sir Benjamin Brodie says (*op. cit.*): "After a patient has conceived himself to be cured and every symptom of the disease vanished, it is not an uncommon thing for him to suffer a relapse, and in all probability a relapse of far greater danger than the previous attack. . . . From what," he asks, "does this arise? From his not continuing," says Sir Benjamin, "at regular intervals, to pass an instrument (sound) notwithstanding the disease should seem to have disappeared. To pass it once in two or three weeks is enough but *it must never be thrown aside as useless, during the lifetime of the patient, if he desires to be freed from his troublesome affection.*"

"Dr. T. B. Curtis, in his prize Essay previously quoted as representing the views of the leading French surgeons, says, page 46, "*All strictures, by whatever manner treated, and in appearance cured, will relapse almost infallibly.*"

"It is, however, an accepted fact that a certain but *very limited* proportion of strictures are permanently

cured by each of the various methods—dilatation, division, divulsion. We may again ask, with Sir Benjamin Brodie, from what does *this* arise? The answer is, simply, that, *to prevent the return of stricture after operation, the stricture must first have been thoroughly sundered at some point.*”

ANNUAL REPORT OF THE BOARD OF HEALTH OF THE CITY OF PITTSBURG FOR THE YEAR 1873—This contains the separate reports of C. Gray, Health Officer; W. Snively, M. D., Health Physician; T. W. Lindsey, Meat Inspector, and also that of the Treasurer and Attorney of the Board. A. H. Gross being President and J. D. Fleming, Secretary for 1873, and M. Edwards President for 1874.

We have not space to notice these reports in full, but a few extracts will be of use. In speaking of the mortality, Dr. Snively says :

“Probably one-half of the mortality, during the year 1873, was due to preventable causes. Our statistics reveal the fact that of the people who died in this city during the year, a little over one-half were children under five years of age. The diseases which produce this excessive infant mortality are many, but their causes are few. Briefly stated, they are insufficient ventilation, defective sewerage, and adulterated milk. The owners of property who erect cheap and improperly constructed tenement houses, the city which fails to construct scientific sewerage and to provide public parks, and the dairy-men who feed their cows on garbage and then dilute the poisoned milk they yield—these three unite to cause the modern slaughter of the innocents.”

Upon the important subject of ventilation of sewerage, he says :

“By the use of water closets and their attendant conveniences of fixed wash-bowls, bathing tubs and sinks, the interiors of city houses are brought into direct communication with the sewers. Whatever gases are contained in these underground passages, seek not only to diffuse themselves under the law of nature with regard to gaseous bodies, but are also frequently subjected to severe pressure. These gasses are dangerous to health. The sensible properties of sewer air are remarkable. It is by no means fetid, as many people suppose ; neither is it pungent or ammoniacal. Its character is nega-

tive, its odor faint, smelling more like soap than any other familiar substance.

"Sewer air may escape very freely in city houses, before its presence will be suspected; and that this happens very frequently, there can be no doubt.

"The whole drainage plan of a dwelling should have the freest possible communication with the outer air at a point so elevated that the sewer gas cannot fail to be diffused and got rid of. This can readily be done while building, by carrying the soil-pipe at full size through the roof, and leaving it open like a chimney. By this arrangement all stagnation is prevented, the contents of the sewer drains are constantly exposed to the oxidizing and purifying influence of currents of air."

ELECTROLYSIS—In the treatment of Stricture of the Urethra; by Robert Newman, M. D., Member of New York State Society. Reprinted from Dr. Beard's Archives of Electrology and Neurology for May, 1874. T. L. Clacher, 107 East Twenty-eighth St., New York.

The author says—

"All the strictures of the urethra intrusted to my care during the last few years have been treated exclusively by electrolysis. The results from this system of treatment have been very gratifying to me, and particularly so to my patients, who were kept under observation for some time after the operation. None were suffered to relapse, and the cure has been in every instance permanent. Such clinical facts seem to warrant more than a passing notice in the records of successful surgical operations."

Which certainly is encouraging as to the action of Electrolysis in such cases. He tells us that—

"The specific action produced by electrolysis in the treatment of stricture has received different names.

"Dutrieux calls it galvano-chemical cauterization. Dittel names it a chemical galvano-caustic. I wish to add my mite, hoping to help in removing the obscurity, in which the action of electrolysis is still concealed underneath technicalities of scientific phraseology. My experience of its action, after observing it minutely in all its known relations, leads me to name this electrolytic action, "*Galvano-chemical absorption*," as I depend mainly on the *chemical decomposition* caused by electrolysis."

As to modes of application, he speaks thus :

"1st. Electrolytic action, by mild currents, from batteries united for tension, produces gradual chemical absorption (as before described.) The current is gradually increased or decreased.

"2d. By galvano-cautery. By reason of great intensity, this agent violently forces a passage; the effect of this powerful action is swiftly to burn its way through the impediment, the result being a firm and hard scab on the walls of the urethra.

"3d. The third method is a mixed operation, or a combination of the former two. The passage is made by the action of a powerful electrolytic current, which may denude the surface of the urethra; the walls are kept apart to prevent adhesion. My predilections are in favor of the first method, and I use it because it is more desirable; and, if circumstances permit, I operate with it in preference to all others, because it is safe, and never has been followed by accidents or ill effects.

"It treats the stricture through mild currents by a 'galvanic chemical absorption.'"

WRITERS' CRAMP, OR SCRIVENERS' PALSY—By Reuben A. Vance, M. D., New York. Reprinted from Boston Medical and Surgical Journal.

Dr. Vance has contributed several valuable articles to medical literature; the present one on the annoying trouble mentioned is in keeping with the rest. In the treatment, the Doctor seems to rely upon hypodermic injections of atropia and strychnia, as the following extracts will show:

"In three of the remaining four cases the hypodermic injection of atropia was the sole remedy employed, and in the other, atropia, at first alone, but subsequently conjoined with strychnia, was used in the same manner.

"The best place in which to inject the remedy is beneath the skin in the loose cellular tissue over the pronator muscles of the forearm."

The following is a convenient formula:

R Atropiæ sulphat., gr. j.;
 Acid, sulph. dil., q. s.;
 Aquæ ad. ʒj.;

M. Dose, one minim.

OBSTETRIC PROCEDURE—The Annual Address before the Philadelphia County Medical Society, by William B. Atkinson, M. D., retiring President. Delivered May 8, 1874.

In this address, Dr. Atkinson notices the question of false and true labor pain, advocating in the former and also in the latter, in cases of retardation, the employment of opiates and hydrate of chloral, having a tendency to rest and relieve the parts, and in this indirect way facilitate labor. The use of the vectis in cases of malposition of the child's head is advised, while the injunction is given to be provided with the forceps, and to use them carefully and fearlessly.

Position in labor is very ably discussed. A position is urged favoring the descent of the child in the line of the axis of the pelvis, and taking into account the gravity of the child, that often either favors or retards labor. No rules will cause one position to be orthodox or heterodox. The end to be attained governs. The following case is given, showing the fallacy of pursuing one course in all cases:

"Often, after many weary hours of labor, with scarcely any advance of the child, delivery has been speedily accomplished by a change of the position of the woman, as, in her irritable and restless condition, she turns from side to side, or rolls upon her bed, or rises to relieve the bladder or rectum.

"Prof. Henry Gibbons, of San Francisco, in a paper read before the Medical Society of that city, says: 'Prof. Dewees, of the University of Pennsylvania, was one of the creators of Obstetric Science. His methodical mind subjected everything to strict rule. When I entered the profession, I was fresh from his tutelage, which required that a woman in labor should lie on her left side. One of my first cases kept me at the bedside all night, resisting the opportunities of the patient, who was desirous to get on her knees. The pains were severe, but with slow progress. I insisted on the orthodox posture, and did not dare to permit a change. At dawn of day, I ventured to leave the bedside for a few minutes, to breathe the morning air, with the prospect of a half day's imprisonment still before me. I sauntered away about a hun-

dred yards—it was in the country—when the husband came running, with lively gesticulations, and calling for my return. I hurried back to hear, on approaching the door, the discordant music which is often so agreeable both to doctor and mother. The woman, the moment my back was turned, climbed on her knees with her elbows on a chair, and forthwith the baby dropped out.’”

Due credit is given Dr. J. W. Smith, of Charles City, Iowa, for his able suggestions upon this subject.

The means for parturition and the expulsion of the placenta are spoken of. Traction of the cord, with detachment of placenta by the fingers thrust up by its side; also the plan generally spoken of as Credé's is favored. The idea of Credé, pressure of the uterus, by the hand, or uterine expulsion, is not a new one. We imagine nearly every moderately informed and common-sense practitioner of experience, has followed this mode of assisting nature, before Credé wrote, and yet it is a point of importance that should be impressed more fully upon the young practitioner, together with the risk of overpressure.

Another common-sense idea that we see Dr. Atkinson favoring, although it has been advanced before, is to place the child to breast at once—the day of birth. This, in connection with the position taken against castor oil as an invariable dose, either to the mother or child, causes us to think the author is an observant, and independent, and *therefore* safe practitioner of the obstetric art.

That a women in labor is to be regarded and treated as in physiological condition is advocated, and as a consequence non-restriction in diet of a nutritive nature advised.

THE AMERICAN MEDICAL WEEKLY—E. S. Gaillard, M. D., Editor and Proprietor, Louisville Ky. \$2 per year.

Dr. Gaillard is well known as a journalist by his large work, the Richmond and Louisville Medical Journal, which we suppose he still continues to issue, al-

though we have had no ocular demonstration of the fact for some time, as we have not received it in exchange for lo, these many months, and are too poor to subscribe for it. We feel grateful that we have even received the advance copy of the Medical Weekly. We hope it will continue to be sent us at least a month after this notice.

TRANSACTIONS of the Eighth Annual Meeting of the Medical Association of the State of Missouri, held at Sedalia, April 21, 1874.

After the minutes of business transactions, comes various reports and essays. The first is a report of the progress of medicine, by E. W. Schaupfler, M. D., Kansas City, Chairman. The discussions of the question, "What is Phthisis?" as treated in the Pathological Society of London is reviewed, placing Virchow and Neimeyer as advocates of the inflammatory origin of this condition, and Reinaffleisch, together with the majority of the English Pathologists favoring its specific nature. The hypodermic use of whiskey and ether is noticed, also the use in the same way of carbolic acid. Various other subjects of interest are included in the report.

Dr. Thomas F. Rumbold, M. D., presents a paper on the "Direct Local Medication in the treatment of chronic catarrhal inflammation of nasal and pharyngo-nasal cavities." This is a well written paper and deals more particularly with various modifications and appliances of the Nasal Douche. Next comes a report on the Progress of Surgery, by J. L. Wilson, M. D., wherein is noticed Esmark's method and the elastic ligature of Dittel. A new method of extraction of cataract, tinting opacity of the cornea, operation for stricture of the urethra and a new method for transfusion of blood, are subjects that are noticed, also a paper entitled "Ophthalmic Portens," by Wm. Dickinson, M. D., of St. Louis, Mo. By this he tells us is meant the significant of *pain* in portending grave diseases, viz., Glaucoma and Sympathetic Ophthalmia. For the first the recognized treatment

is Iredectomy, for the second the enucleation of the diseased eye-ball.

Electricity in Medicine, by W. C. Glasgow, is not a very powerful paper but a very fair short resume of the history of Electro-therapeutics. Taken altogether we cannot say that there is anything very striking in the whole transactions, perhaps hardly up to an average, yet, when we look at the published transactions of other States, Illinois, Indiana, Ohio, etc., we feel that distinction, while they can be made mentally, ought not to be forcibly expressed on paper. They are none of them what we should expect.

HERPES GESTATIONIS—A rare affection of the skin peculiar to pregnancy, by L. Duncan Bulkley, M. D. Reprinted from the American Journal of Obstetrics and Diseases of Women and Children. Vol. VI, No. IV, Feb., '74. W. Wood & Co., publishers, New York.

It is a common occurrence to have blotches and spots appear upon the body of pregnant women; even vesicle, etc., are not uncommon; but here are given cases where papules, vesicles, maculae urticaria, itching of a violent nature, pemphigus and bulla, are reported, etc., so that one would suppose it the rule instead of exception that cutaneous irritation was "part and parcel" of the pregnant state. Quinine, iron, and cod-liver oil are given as internal remedies, and the following as local application, at least, where Herpes is the form of malady:

R Picis liquida, ʒii;
 Potassa. caustica, ʒi;
 Aqua fort. ʒv.

M. Use diluted one teaspoonful to four ounces of water followed by inunction of mutton tallow.

RARE CASES OF CONGENITAL SYPHILIS—by L. Duncan Bulkley, A. M., M. D., New York. Reprinted from the New York Medical Journal, May, 1874. D. Appleton & Co., 549 & 551 Broadway, New York.

This author is the translator of Newman's Hand Book of skin diseases. He gives here a history of two cases of

dactylitis syphilitic and one of dactylitis non-syphilitic, also one of syphilitic disease of the lungs. Dr. Bulkley proposes to issue under the auspices of the New York Dermatological Society, a quarterly journal devoted to diseases of the skin and allied subjects, under name of *Archives of Dermatology*," the first number to appear October next, illustrated, and a special department for Photographic work and Microscopy. The subscription price will be \$3 per year. Published by G. P. Putnam & Sons, 7 Ann and Twenty Third Street, New York.

BRAITHWAITE'S RETROSPECT—This work than which nothing of a similar character has at any time appeared in better shape, has been issued for 34 years, every half year; it comes to us freighted with valuable extracts, an epitome indeed of at least British Medical literature. Rankin's effort at an abstract of medical literature, valuable as it was in its day, was by all considered second to this mammoth periodical, to whose pages reference could be had—an encyclopedia of recent thought. We are pleased to learn that its circulation and support has increased rather than diminished, as is too often the case with large and valuable issues.

A COMPENDIUM OF MEDICAL SCIENCE—Comprising manuals of Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine, Surgery and Obstetrics, for the use of students, by Henry Harts-horn, A. M. M., D., Prof. of Hygiene in the University of Pennsylvania. Second edition enlarged and thoroughly revised, with four hundred and seventy seven illustrations. H. C. Lea, Philadelphia. Cathcart & Cleland, Indianapolis.

Such works as this are no doubt of great use for ready reference, and especially to the student while practicing his studies at school. It fills the place of a "dissector," with much added materials that we do not there find. We consider the present work one among the best of its kind.

THE PSYCHOLOGICAL AND MEDICO-LEGAL JOURNAL—Conducted by W. A. Hammond, M. D., assisted by T. M. B. Cross, M. D., New York, and F. W. Christeon. In monthly numbers of 72 large octavo pages. \$5 per year.

The former effort of Dr. Hammond in a similar enterprise was, up to the time of the suspension of the Journal, a success ; we feared then that he had disappeared entirely from journalistic work. We are pleased to see that this is not the case. May this be a permanent effort.

THE PHYSICIAN'S MONITOR FOR 1874—A concise repository of useful information for the medical practitioner, containing recent discoveries in the medical world, etc. W. A. Townsend, Publisher, No. 177, Broadway New York.

By notice of the publisher we learn that this work is "Published annually at 25 cents post paid." It is more an advertising medium than otherwise, 50,000 copies circulated gratuitously. We have no doubt the publishers makes it pay, at least they ought, or "suspend."

NOMENCLATURE OF DISEASES—Prepared for the use of Medical Officers of the United States Marine Hospital Service, by the Supervising Surgeon, John M. Woodworth, M. D.

Being the classification and English-Latin terminology of the provisional nomenclature of the Royal College of physicians, London. This is a work of labor if not of love.

SYPHILITIC MEMBRANOID—Occlusion of the Rima Glottidis, by Louis Elsberg, M. D., Prof. of Laryngology and Diseases of the Throat in the University of New York. Reprinted from the Journal of Syphilography and Dermatology, January 1874.

This is a collection of cases illustrating the effect of syphilis as appearing in the throat, and giving the mode of treatment.

SUPPLEMENT to the Medical News and Library. Philadelphia, H. C. Lea, Publisher, monthly, 48 pages.

The half-yearly abstract having suspended, the present issue is intended to take its place in this country. We lost in that a valuable Journal of reference, we trust in *this* we shall find a sufficient substitute.

Editorial.

THE TYRANY OF BIGOTRY AND OBSTINANCE
OF IGNORANCE.

We speak of these as they are found in the medical profession. Ignorance has established its land mark, hedged in a beaten track as referring to any subject, and guards it with the rage of a wild beast, let any one attempt to stray in search of a better path, or wider field of inquiry, and immediately the attack is made, "the lash of the whipper in" is heard; thus by constant watchfulness worthy of a better object, the truth is hid from the many, only the courageous few leap the boundary and search until they find the nourishment they need. Many points might be mentioned in illustration of the truth of the heading of this article—we only wish to cite one. Those who honestly hold to the somatic theory of insanity, the clear minded men who advocate it in its present form, have many followers, but unfortunately it takes not more than one remove from the leadership to cause the doctrine first enunciated to be distorted and mistaken until it becomes a jumble of nonsense only to be believed and upheld more strongly by the satellites than by the parent mind. We have not space to say much upon this subject ourselves but will introduce extracts from speeches of recognized good Psychologists, Physicians and Pathologists, not only to state the *true* position taken by the "Somatics," but also to enlighten gentlemen whose perceptions are so blunted that their sight cannot perceive the cloud of dust they themselves have raised. These extracts shows first, that it is not universally acknowledged that *brain* alone exists with an educt called mind; that must of *necessity* perish with the material; and second, that he who dares to say there may

be a something not tangible to our senses and who presumes to give *logical* proof of such existence is not to be denounced as an idiot. Sustaining these remarks we insert in our miscellaneous department a somewhat lengthy extract from the proceedings of the Medico-Psychological Association of London, in which some of the leaders in Psychology speaks.

Miscellaneous.

PROCEEDINGS OF THE PSYCHOLOGICAL ASSOCIATION OF LONDON.

Professor Gairdner then opened a discussion on the question, "*In what Sense, and under what Limitations, can Insanity be regarded as a Disease of the Body?*"

We can only give a brief abstract of Professor Gairdner's remarks in introducing the discussion, leaving their purport, so far as not here stated, to be gathered from the discussion itself and from his reply. He said that the idea of introducing the subject arose in his mind from some incidental remarks made at the last meeting in Glasgow, which were very imperfectly, and indeed unintelligibly, reported in the Journal. *Apropos* of a case of tumour of the brain, Dr. Gairdner had said that physicians practicing in asylums were apt to draw fallacious inferences from the fact of the coincidence of such lesions with disorders of the mind in particular cases, and that this followed almost necessarily from the fact that their field of experience excluded all the far more numerous instances in which similar organic changes occurred without anything that could be rightly called insanity. It had grown to be a kind of *dogma* of late years that insanity is simply a disease of the brain, and this dogma, like all other dogmas, when once formulated

and affirmed with a certain amount of conviction, tended to distort the evidence on which it professed to be founded; a most notable proof of this fallacy being the popular, and in a certain sense also medical, use of the term "softening of the brain," as a vague general term for almost all kinds of chronic insanity, with just as much and as little reason as is, or was, implied some years ago in referring all manner of degestive disorders that were not clearly understood to the liver. In consequence of this loose way of arguing in a circle from insanity to softening, and then again from softening to insanity, an odd conflict of evidence arose some years ago in a court of justice. An old man died, it was alleged of "softening of the brain," this being, in fact, the technical name under which his fatal disease, apoplexy, was with quite probable accuracy registered by his ordinary medical attendant; and it was further alleged that many years before this he had suffered an attack of "sunstroke" in Africa. Upon these two alleged facts was built up a hypothesis of insanity, commencing with the sunstroke, and ending in "softening of the brain," which, aided by a vast quantity of local gossip, and medical evidence chiefly relating thereto, was so convincing to the jury as to lead them to concur, unanimously, in reducing a will framed three years before death, evidently with great care and forethought, and on the basis of instructions that were unquestionably shown to be the spontaneous act of the tester, and the cherished idea of half a lifetime. The verdict was appealed against as contrary to evidence, and a new trial ordered, and it was then proved to the satisfaction of another jury, which with equal unanimity sustained the will—first, that the alleged sunstroke had never had any existence; and, secondly, that the "softening of the brain" carried no such significance as had been attributed to it inferentially in the first trial, and indeed that it, too, was not at all a positive fact observed, but a mere presumption founded on the mode of death.

In dealing with the question announced for remark, Dr. Gairdner said it was essentially the same question and surrounded with the same difficulties and perplexities, as were found to environ everywhere the attempt to distinguish between functional and structural disease. All that can be definitely and positively affirmed is that there are cases of mental disorder where a structural lesion, or some chemical change affecting the blood or the tissues, can be demonstrated as an apparant cause of mental derangement; and others, again, where no such changes can be proved. Further, there are some cases where the structural lesion, when present, may be reasonably inferred to have a distinctly casual relation to the symptoms, and others again where, given a structural change, no such casual relation can be legitimately inferred, inasmuch as in numerous cases, not necessarily of insanity, like changes are found to occur with symptoms wholly dissimilar in kind. All beyond this is involved in the same mystery and perplexity that surrounds the essential nature of the association of the mind with its organ, or indeed of function with structure in the case of any organ.

The difficulty is, therefore, not peculiar to the case of mental pathology, though it is in that region that it comes most evidently into contact or collision with beliefs involving important practical consequences. Furthermore, it is not a real solution, but only an evasion, of the difficulty, to postulate as a proved fact the dependence of insanity upon bodily disease. The fact is not proved; the difficulty, therefore, remains as before.

In one sense, indeed, it may be assumed as indefinitely probable that structural changes *always accompany*, even if they do not *always cause*, insanity. For it is as nearly certain as any profound, almost transcendental, truth can be, that function and structure, however associated in their essences, cannot be separated in their pathology any more than in their physiology. As we have

reason to know that *every functional change whatever*—the contraction of a single muscular fibre, the secretion of a single drop of urine, and in like manner the functional activity of every nerve-ganglion or nerve conductor—involves a certain change in the structure of the parts thus actively engaged, it does not seem too much to infer that thought, sensation, emotion, will, are in like manner accompanied by structural changes in the organ through which they are manifested; and this without the slightest prejudice as to any ultimate theory of mind, and the mode of its association with the bodily organ. It seems, from this point of view, extremely probable, if not demonstrably certain, that no case of mental derangement is unaccompanied by changes (probably exquisitely and infinitesimally minute in some cases) either in the structure or in the chemistry of the brain and nerves. And perhaps it may seem, from the practical point of view, idle to discuss the question whether, in apparant derangements of the mind, it is the mind first, or the body first, that is disordered. In many, or most, cases indeed we cannot know—we grasp only the end-links in the chain of cause and effect, and no mere observation of casual alterations in the tissue of the brain will justify the conclusion that these have been really the cause of the earliest symptoms.

As a question of simple observation, then, it is impossible to found a purely *somatic* pathology of mental derangement in general upon what we know of the morbid anatomy and chemistry of the insane brain, or blood.

On the other hand, it is unquestionable that some, especially of the more acute and (so to speak) explosive kinds of insanity—the paroxysms of general mania, and of acute delirium—have analogies so close and suggestive with the more obviously somatic forms of delirium, determined by blood-poisoning (alcohol, haschish, and probably typhus poison, &c.,) that it is much easier to conceive of these as arising from the bodily state than

to suppose the latter to be determined by the former. But even in these cases the acute attack of insanity is often only the incidental paroxysm of a permanently abnormal state, and the question of the physical origin of this is as difficult and as remote from direct observation as ever.

Conversely, there are cases of insanity so obviously growing out of the long and continuous action of moral causes, aggravated in some instances by physical complications, or by the sudden disturbing influence of overwhelming emotions, grief, terror, political and religious excitement, love, even sudden fashions, and the power of simple association acting upon ignorant multitudes (dancing-maniacs, child-pilgrimages, witch-sabbaths, &c., &c. ;) that it seems impossible to doubt the competency of psychical causes, under certain combinations, to determine mental derangement. And if we carry out the inferences derived from these more typical cases into the still ample realm of the less known groups of disease commonly confounded under the various names of monomania, melancholia, hysteria, morbidly developed of various kinds (often, no doubt, associated with more or less obvious bodily disease,) we shall find it quite reasonable to suppose that in many of these cases, the starting-point may be, as it often seems to be, *an abnormal mode of activity of the mind itself*—a prevailing sentiment; an habitual emotion; a strong prejudice in favor of, or against, an individual; a settled opinion, a rooted feeling of love, hate, jealousy, ambition, so nursed and indulged as to dominate over the whole moral nature, and to control, practically, the freedom of the will, and even the reason.

In such cases, not only may delusions follow, and the whole phenomena of insanity in its most developed forms; but even when the morbid changes fall far short of this, the psychical disorder will inevitably, as we have seen, become associated with corresponding changes in

the physical organization, and these, infinitesimal at first, will go on deepening, and being confirmed by time, the wear and tear of the nervous system being in accordance, so to speak, with abnormal instead of normal, modes of activity; so that in the end it cannot be surprising that these changes should be found practically irremediable; the very channels of nervous influence, and the ganglia, through which its storage and discharge are effected, becoming permanently diseased and disabled for normal activity, in accordance with the laws of textural nutrition underlying both pathology and physiology.

And, to conclude, it is in strict accordance with all we know of the hereditary transmission of the physical instincts, along with that of the structures conformed to them, that *such changes, even when thus acquired, may become hereditary*; so that vicious habits and unsound propensities, in the first instance implanted by accident or by training, may, *when confirmed by habit into instincts*, be transmitted so as to vitiate a whole race, just as acquired beneficial habits as instincts are known to be transmitted, *e. g.*, in the case of the shepherd's dog, the pointer, &c., or even indifferent habits, as in the case of those *tricks* of manner which are well known as occasionally passing from a parent to his offspring, or even his grandchildren, under circumstances wholly precluding the possibility of direct imitation.

DR. TUKE the Chairman—I very much regret that there are not more present to-day to discuss a subject which seems to implicate to a very considerable extent the status of psychiatric medicine. I am quite unprepared to reply to Dr. Gairdner, still cannot refrain from making a few remarks. It strikes me that Dr. Gairdner advocates to some extent the belief of the existence of mind apart from body; if so, I hardly see how to join issue with him, for we have no common ground for combat. But I can hardly believe that he does not admit that every operation of the mind is manifested

through the brain, and that every manifestation is accompanied by and results in a certain change of tissue, whether chemical or molecular. For my own part I cannot imagine the existence of an insane mind in a sane body. I think an appeal might be fairly made in support of this proposition to those of the profession who treat the great mass of mental disease—I mean the general practitioner and the physician, not the medico-psychologist. Whilst that word is on the tip of my tongue, I should like to say that it is to my mind the most miserable of the many miserable euphemisms which exist in our specialty. I would ask the general practitioner and physician how many diseases they meet with in their everyday practice in which there is not to a certain extent a mental condition different from the normal mental condition of the patient. The various diseases comprised under the generic term of dyspepsia, diseases of the liver, kidneys, and spleen, fevers, pregnancy, and the puerperal condition, and surgical diseases, more especially those of the rectum and bladder, are rarely, if ever, unaccompanied by impairment or perversion of the intellectual powers, or of the moral condition of the patient.

Dr. IRELAND regretted that more members had not come to listen to the views of Dr. Gairdner. He thought that a discussion of this kind might become an interesting part of their meeting. Dr. Gairdner left out of consideration what he called the two hypotheses—that mental activity was a function of the brain, or that there was an immaterial entity different from the brain, and which might exist without it. He did not think we could clearly discuss the question unless we knew the views a man had on this subject. He believed that there is an immaterial entity independent of the brain, for he could not conceive of thought being carried on by so much albumen, cerebrie acid, and phosphorus. It was a common assumption that the immaterial mind could never be affected by insanity; but this could not be

proved. We know from experience that our minds can become distracted by passion, by false reasoning, and strange desires. Experience shewed that men might be subject to painful emotions from which they could not escape, or that they might yield to vicious passions till these mental conditions ended in insanity. It might be answered that there was always a constitutional tendency in such cases for the brain to become diseased from the influence of these emotions; but unless it could be shown that this tendency was very powerful, so as to manifest itself under common exciting causes, it would be absurd to deny the great power mental emotions have in producing insanity. The speaker quoted Hecker's "Epidemics of the Middle Ages" as a proof of the power of the mental influences in producing mental derangement, and the observations of German microscopists upon fatty granules and granular cells as a proof that lesions which were at first believed to be the causes of insanity might turn out to be merely its results. In reply to Dr. Tuke, who argued that it was unreasonable to talk of a man treating insanity medicinally, unless it were an accidental matter, Dr. Ireland remarked that no one was holding that the mind was not closely connected with the brain, and that the great improvement in the treatment of insanity did not consist in acting upon the body with hellebore or douches, or other material methods, but in introducing new methods of mental and moral treatment, and that some pronounced materialists were remarkable by the great stress they laid upon this psychical method of cure.

Dr. ROBERTSON—The connection between insanity and a disordered brain has been so generally admitted that the very title of Dr. Gairdner's communication is startling. And yet he has shown there are good grounds for putting the question; it has not been established, in fact it is impossible to show, that a disordered condition of the brain exists in all cases of insanity.

Of course that is not opposed to the idea advanced by mental disease, and afterwards this mental disorder may act upon the nervous tissue inducing disease. But when insanity is fully declared, I certainly think, as I have said, that the brain itself is involved. If, upon a *post-mortem* examination of an insane person, we do not find evidences of disease, the probability is that this is due to an imperfect examination, or if the examination has been sufficiently complete, it may be that the instruments we employ are not sufficiently refined to detect those minute changes in the cerebral substance which may prevent the healthy exercise of the mental powers. But though this is my conviction, and is also, I believe, the conviction of almost all medico-psychologists, it must be admitted that the universal dependence of insanity on brain disorder has not been demonstrated.

Dr. SKAE—I would not have ventured to speak on the subject without a very great deal of preparation were it not that there are so very few of us here, and that it is desirable we should all have a shot at it. I listened with great interest to Dr. Gairdner's exposition of his view of the question, for it is always a downright pleasure to listen to Dr. Gairdner, even when one thinks him in the wrong; but I must say, I do not even yet understand clearly what his position is.

When I look at the question as it is in the printed notice, I cannot exactly understand whether Dr. Gairdner means that the question is this—"Is insanity sometimes only a functual disease, or is it always an organic disease?" or—"Is insanity sometimes a disease of the mind—an immaterial entity—and sometimes a disease of the body?" I entirely agree with what Dr. Tuke has said. The whole question is summed up in the expression he made use of—"Can you have an insane mind in a sane body?" We must all admit that we hold our existence in this physical world by physical means. If you have no body you have no mind. You have your

body in a certain condition, and your mind in a certain consequent condition, and any alteration of the mind must be accompanied by an alteration in the body. The same cause will always produce the same effect—that is to say a different state of mind—if you have a different effect you must have a different physical basis or cause for it. You may have the most reckless notions of a general paralytic without any *demonstrable* brain disease, and you may have a great deal of brain disease, as Dr. Gairdner said, without any demonstrable insanity at all. I think to discuss the question you must revert to the larger one of whether or not mind is a function of the body; and, of course, if you admit that a healthy mind is a function of a healthy body, you will admit that an unhealthy mind is a function of an unhealthy body.

Dr. GAIRDNER—It would have been impossible for me to have supposed when I saw the small meeting, that my suggestions should have brought out so valuable reasoning. I quite agree with Dr. Skae that the argument reduces itself in the end to the fundamental question of what is the actual mode of association of the mind and the body, and as this is wrapped in profound mystery we are always apt to lose ourselves in a mist of words. But nothing shows the almost intangible character of the differences arising in this discussion more than the excellent remark of Dr. Tuke, that he could not conceive of an insane mind in a sane body. I agree with him entirely. The very object of my remarks was to show that wherever the abnormal condition may be conceived to begin in any case of so-called mental disease, it must touch both function and structure. You cannot separate the two. I think we are bound to admit that, speaking from the physiological point of view, function and structure are absolutely and indissolubly associated. I quite agree with Dr. Tuke that it is impossible to have an insane mind in a sane body; and further, the more the insanity of the mind becomes chronic, the more ha-

bitual it is, the more multiplied the departures it takes from the standard of sanity—so much the more inconceivable does it become that we should have an insane mind in a sane body. But to show how this touches on the impalpable, I will push it a step further. I cannot conceive of a passionate or wrathful mind in a perfectly normal body. I cannot conceive of a lustful mind in a perfectly sane body. I cannot conceive of a mind, which for any length of time, or even from any temporary cause, has become the slave of any bad passion, or vicious indulgence, or, indeed, that is subject to any kind of abnormal manifestation whatever, as being associated with a brain that is utterly and absolutely normal; because I think the very fact of an abnormal manifestation disturbs the normal physical constitution of the organ. Therefore there is no real dispute as to the fact of bodily implication in mental unsoundness, and the question is what is the most proper way of stating the fact—the way that will comprehend the greatest amount of truth, and exclude, to the uttermost, fallacy and error in stating an admitted general principle. I am of opinion that the now popular way of speaking of insanity as if it were a structural disease of the brain—just as pneumonia is a structural disease of the lung—has led to errors and fallacies of observation, and in some instances to great confusion of thought, and assertions not founded on observation at all, as I have endeavored to show in my introductory remarks. Then there is another aspect of the subject that I think is not unimportant. Dr. Skae says quite correctly that this question leads up to the metaphysical question. I was willing to argue it on a less abstract ground; but if I am pressed to declare my opinion, I will say, “Yes, I must acknowledge mind conceivably separated from body—at least from any particular body with which it is at present associated.” That may not seem to be practical from the medical point of view, but it is not unpracti-

cal when you consider that every bad habit arising in the mind, every abnormal mode of its activity, every passion indulged, every strong rebellious habit nourished up so as to become an overmastering power in the soul, is, or may be, actually creating disease—gradually and slowly developing insanity, and with it those changes in the physical structure, which, I believe, in many cases are secondary, and which when confirmed so as to become a permanent portion of the individual organization, may, I believe, be transmitted by inheritance. I think it important that the public and the medical profession should appreciate fully the powerful influences that a man's moral control has over himself to prevent and modify the occurrence of insanity in many cases. A little book was written some years ago on "Man's power over himself to control insanity." It is a subject, I think, very interesting. As Dr. Ireland has very properly said, the whole discipline of our asylums in the past, and the change to everything that is good in the modern treatment of insanity—everything in which it differs from the old harsh methods of hellebore, stripes, and chains, is, in fact, an appeal from physical to moral recognition of the fact that even the insane mind, can, within certain limits, be controlled by moral and spiritual forces; that although obstructed and impaired in its action, it is still essentially *mind*, and subject, therefore, to the laws of spirit as well as those of matter.—*Journal of Mental Science*.

ON "REST" IN THE TREATMENT OF CHEST AFFECTIONS.

BY FREDERICK T. ROBERTS,

Assistant Physician to University College Hospital, and to the Brompton Consumptive Hospital.

To any one who is acquainted with the pathological conditions resulting from this disease, it must be evident

that to restrain the movements of the affected structure, to prevent the friction of the inflamed surfaces against each other, and keep the parts as much at rest as possible, ought to be the *first principle* to be followed in its treatment. The state of things is very similar to that observed in the connection with an inflamed synovial membrane in a joint, and perfectly motionless. I have never seen this principle definitely advocated for the treatment of pleurisy in the published writings in this affection, and, with the exception of two or three suggestions on the subject, it does not seem to have received any particular notice. In the course of my hospital practice during the last ten years, a large number of cases of this complaint have, as a matter of course, come under my care. In the year 1864 I, quite independently, arrived at the conclusion, from certain observations, that the primary object to be arrived at in treating pleurisy should be to endeavour to procure rest; and since that time experience has fully convinced me that I was not mistaken in my opinion. I have on previous occasions brought the subject before the profession, among others in a paper on "Rest and Position in the Treatment of Medical Diseases," published in vol. ii, of the "Liverpool Medical and Surgical reports," 1868. In my "Handbook of Medicine," lately published, the principle has been definitely laid down and advocated, and an indication given of the mode which I usually adopt in order to procure the needed rest. Now I propose to present a more detailed account of my experience of this treatment, and of the manner in which it is carried out.

With regard to the methods employed for procuring rest in the treatment of pleurisy, that which is of special importance is the use of certain appliances fixed round the affected side more or less extensively, so as to limit or prevent its movements. As subordinate aids, it is advantageous in severe cases to keep the patient quiet; to give instructions to restrain the breathing as much

as possible (though this is generally done instinctively, on account of the pain the act induces); and to forbid all conversation. In a pathological point of view, the results which might be fairly anticipated from this mode of treatment are, that the inflammation would be limited and subdued; that the effusion of lymph and fluid would be checked; and that whatever morbid exudations had been poured out would be more readily absorbed, followed by organization of the remaining lymph, with the formation of adhesions.

In actual practice cases of pleurisy present very considerable differences when they come under observation, and it will be necessary to point out to what extent the treatment by rest is applicable to the different classes. In one group of cases, of very common occurrence in hospital practice, the inflammation is localised to a small patch, and appears to have but little tendency to spread. There is generally a good deal of pain, especially on breathing or coughing, but there are no constitutional symptoms. Physical examinations reveal limited friction-sound. In these instances the firm application of three or four strips of plaster around the side, in the manner to be presently described, most invariably gives complete relief, and even allows the patient to continue his occupation. Nothing more is needed, and in a week or two the plasters may be removed. In another class of cases, a patient comes under notice who is evidently in the early stage of a severe and extensive attack of pleurisy, judging by the local and general symptoms and physical signs. It is an unfortunate fact, however, that in many instances the symptoms are not very prominent at first; and it is by no means uncommon to find that abundant effusion has taken place before the patient is aware that there is anything particularly wrong. Should a case come under treatment in this early stage, I would strongly recommend that a trial should be given to the plan of *mechanically fixing the entire side* by one of the

methods to be now described. In order to be of any use it should be done effectually, so as to restrain the movements as much as possible, and the sooner the application is made, the more likely is it to be of service. The plan I originally adopted was the following:—Strips of adhesive plaster, from four to five inches wide, were fixed at one end close to the spine, and then drawn tightly round the side as far as the middle line in front, the patient being directed to expire deeply. In this manner the whole side was included, commencing from below and proceeding upward, each succeeding strip partially overlapping the one below. One was also fixed over the shoulder. Over this layer of plaster strips of bandage of the same width were fixed in like manner, having been previously dipped in a mixture of mucilage and chalk, such as is used in the treatment of fractures. Two or three layers of these were laid on, and then heated sand-bags applied, in order to dry the application as soon as possible. This is a most effectual mode of fixing one side of the chest, while it leaves the other quite free to act; and I would, by the way, commend it to those who are called upon to treat fractured ribs. The plaster adheres firmly to the skin, and the bandages adhere to the plaster, a firm casing being formed which will remain on any length of time. With regard to pleurisy, however, I have since then adopted another plan, which, so far as this disease is concerned, seems sufficiently efficacious. It is merely to use strips of plaster, putting on two or three layers in the following manner:—The first strip is laid on obliquely *in the direction of the ribs*, the second *across the course of the ribs*, the third in the direction of the first, and about half overlapping it, the fourth as the second, and so until the entire side is covered. A strip is also passed over the shoulder, which is kept down by another fixed round the side across its ends. Now it is difficult positively to prove that this treatment actually checks the course of pleurisy; but,

taking a common-sense view of the matter, it is not improbable that such a result might be anticipated; and, from my own experience, I have not the slightest doubt but that it is brought about. I have carried it out now in a good number of cases, and in all the course and termination have been most satisfactory, while relief to the pain and other distressing symptoms has been generally immediate. I feel convinced also, that in many cases of extensive pleuritic effusion which come under observation, the accumulation might have been prevented or moderated had this plan of treatment been adopted at an early period.

In another set of cases of pleurisy there is found to be a moderate amount of effusion when the patient first comes under treatment. Here, too, I would recommend efficient fixing of the side. In those cases in which I have carried it out, I have almost always had satisfactory results, whereas I have more than once regretted the neglect of this plan of treatment. Where the effusion is very abundant, but little can be expected from it, though I think that occasionally it has appeared to aid absorption. Now and then cases present themselves in which there is extensive exudation of lymph over the surfaces of the pleura, with but little fluid. Here the only object to be desired is to bring about adhesions of the surfaces as soon as possible, and strapping the side firmly aids this most certainly. In bilateral pleurisy of course this mode of treatment can scarcely be practiced; and where this disease complicates others it will be of less service.—*Practitioner*, March 1874, p. 182.

CENTENNIAL OF CHEMISTRY.

SECOND DAY.

On Saturday, August, 1st, the chemists reassembled at the school-house, for the celebration of the one hun-

dredth anniversary of the discovery of oxygen, and after some preliminary business relative to the observance of the day, which on the programme, is called "Oxygen Day," Professor J. Lawrence Smith, of Kentucky, addressed the meeting, and speaking in complimentary terms of Professor Liebig, proposed to raise a fund in aid of the statue to be erected in honor of that distinguished scientist at Munich and Giessen. He was followed by Professor Silliman on the same subject, and a sum of about \$600 was thereupon raised in furtherance of the object. The next business was the commemorative address on American Contributions to Chemistry, which was delivered by Professor Benjamin Silliman, of New Haven, Conn.

He said: "The history of modern chemistry began with Priestley at about the time of the American Revolution, but the scientific revolution was ahead of the political one." He alluded to many men who had sacrificed themselves in the pursuance of science, and whose names were familiar ones in every household. Priestley was to chemistry what Newton had been to celestial mechanics. He divided his subject into two heads, historical and contemporary. Under the first of these he alluded to the societies for the advancement of science in the last century, to the seminaries and other channels of communication then offered. The Franklin Institute in Philadelphia, the speaker said, was the oldest American scientific institution.

He enumerated Rumford, Priestley and Franklin as shining lights in the pursuit of science. Franklin died just before the arrival of Priestley in America, and his decease was a great blow to the distinguished discoverer of oxygen. Rumford, although oppressed by duty, was given to science. His greatest discoveries were made in Germany, but on account of his birth and his sympathies, we claim him as an American. As for Priestley, his writings, marked with more originality

than those of Rumford, are so stamped with interest in the affairs of our country, that in claiming him as an American we do but scant justice to his memory.

He continued, if oxygen is not an American discovery we have some right to claim it as such, inasmuch as England expelled its discoverer, and it was here that he found a refuge where he could resume his labors and continue his pursuit of chemical truths. His discovery of oxygen was the means of overthrowing the phlogistic theory of chemistry, of which he himself was the strongest advocate. As a logician and writer, Priestley stood preeminent. He next reviewed the subject of scientific foundations of prizes established in colleges for chemical treaties, and said that of Rumford, at Harvard, was the first established in this country, whilst Megellan, in Philadelphia, and Irving, in Cambridge, came next in order. He alluded to the progress of chemistry in the United States, and enumerated the dates at which the professorships for the teaching of that science were founded in the several colleges of the Union. Princeton College was the first to establish a separate chair of chemistry. Prior to its foundation other colleges had in their medical curricula united the study of chemical science with that of medicines. Other institutions followed the example of Princeton in the succeeding order: William and Mary, University of Pennsylvania, 1779; Columbia, 1800; Yale, 1803; Bowdoin, 1805; South Carolina, 1811; Dickinson, 1811; Brown, Dartmouth, 1830; Rutgers, 1830. He passed over in rapid review the works and discoveries of distinguished chemists in the earlier period of the nation's life, and paid a glowing tribute to the memory of Norton, Winthrop, Dexter, Gorham, (Harvard,) Rush, Hutchinson and Woodhouse, of Philadelphia. He alluded to the University of Virginia, where such men as Emmett, Rodgers, Smith, and Mallett had held professorships.

To the American Academy of Arts and Sciences at

Boston, he said, chemistry was deeply indebted. The subject of chemical discoveries was then taken up, and a long description of the oxyhydrogen blow pipe discovered by Dr. Hare was given. Dr. Hare was far in advance of his time, deserving the name of discoverer as well as inventor, and richly meriting the Rumford medal bestowed upon him for his discovery. The speaker referred to other distinguished chemists, among them Lubert, Joseph Henry, Alex. Bache, J. W. Beuley, and W. C. Wells, to the latter of whom he paid a warm tribute. The scientific awakening in 1845 was next debated upon, the numerous discoveries and improvements made in the study of chemistry being alluded to, as well as the organization of the Smithsonian and other institutions of scientific research. On the subject of schools of science much was said, as upon the kindred subject of scientific lectures. Finally, he closed with a brief review of what the world owed to America in the field of chemical research, and recapitulated the discoveries and inventions made in this country within the last century. —*Medical and Surgical Reporter.*

A PRACTICAL POINT IN THE OPERATION OF OVARIOTOMY.

BY DR. ATLEE, PHILADELPHIA.

Dr. Atlee calls attention to the following very important practical point in the operation of ovariotomy. It is this: *immediately after making the incision through the walls of the abdomen, the index finger should be passed up to the region of the umbilicus, and if it can be swept freely across from side to side it must be within the abdomen.* This, of course, is an easy matter when no adhesions exist. It is always possible, in parietal adhesions, when the finger is inside of the peritoneum. It is not possible, without the most unwarrantable violence, when the finger is between the layers of the abdominal parietes. The non-observance of this rule has led to the separation of large

portions of the peritoneal layer of the walls of the abdomen, even when no adhesions existed, the operator having mistaken the peritoneum itself for an adherent cyst-wall. When, however, parietal adhesions do exist, the mistake may be more excusable and more readily made, particularly in such a case as the one just related, where the peritoneum is thickened and more strongly incorporated with the cyst-wall than with the wall of the abdomen. The most convenient and infallible test of being within the abdomen is *the ability to freely move the finger to and fro past the umbilicus*.—*Philadelphia Medical Times*.—*Edinburgh Medical Journal*, Nov. 1873, p. 460,

ANTIDOTE TO STRYCHNIA.—The *Journal of Applied Chemistry* says it is asserted that salad oil promptly applied is an antidote to strychnia. The remedy has not been tried on men, but on dogs, a half pint of oil is said to be sufficient to prevent fatal results.

[The late James F. Reed, Esq., of San Jose, California, some years ago assured us that he relied upon lard as an antidote, and had, by its free administration, saved the lives of dogs and other animals on more than one occasion. The people of California employ strychnia to kill the gophers, and thus the dogs and other animals are liable to be poisoned.—ED.]

PROFESSOR August Vogel encloses ether in a gelatin capsule. In cases of tapeworm the patient swallows a capsule, the ether is vaporized in the stomach, the worm is stupefied, and may be removed by usual remedies, which are powerless when the worm is able to resist.—*Journal of Applied Chemistry*.

To disguise castor oil, rub two drops of oil of cinnamon with an ounce of glycerine, and add an ounce of castor oil. Children will take it and ask for more.—*Journal of Applied Chemistry*.

THE bitterness left in the mouth after certain medicines is quickly removed by chewing the rind of a lemon or orange. Some use licorice root for the same purpose.

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Original Communications.

INDIANA MEDICAL COLLEGE CIRCULAR REVIEWED.

In a circular issued by the Indiana Medical College of this city, false statements are made that demand an answer. Those who are acquainted with the facts need no refutation of this most nonprofessional article, and we presume the College of Physicians and Surgeons do not wish to reply to it, but for the benefit of those who know not the data upon which it is based we notice it.

This circular quotes from the announcement of the College of Physicians and Surgeons that "Several members of the Faculty occupied chairs in the Indiana Medical College. Chief among their reasons for withdrawal from that institution was the ill effect produced by its relation to the State University—a relation nominal in its character, bringing no aid, present or prospective, and certain to be terminated in the spring of 1875."

And says "By what authority, however, they add the prophetic declaration, "certain to terminate in the spring of 1875," we have not been able to discover.

The Indiana Medical College acceded to an overture made by the President of the University Board of Trustees, and submitted terms of union to that Board. A committee was appointed by the Board to consider the matter. With this committee a written contract was entered into, by which contract the Medical College transferred its corporate existence, and its property, to the value of several thousand dollars, to the State University, without limitation of time. Subsequently, when the Board of Trustees of the University came to confirm the action of their committee, they asked the Medical College to agree to furnish free tuition for the term of three years, without looking to the University for remuneration; which request was finally acceded to on the part of the Medical College. This, however, does not in any way limit the original contract, which can be rescinded only by the consent of the contracting parties."

The members of the Faculty of the Indiana Medical College who severed their connection with that institution, were at one time, we believe, in favor of a union with the University, provided, it could be obtained upon satisfactory terms. It is unnecessary to enter into detail—suffice it to say that a contract was entered into with the State University in 1871. A copy of that contract is here given, and we consider it a sufficient answer to all that we have above quoted, with reference to the connection of the Medical School and University:

"The State University of Indiana being desirous of establishing a Medical Department thereof, propose to the Indiana Medical College, that the Faculty of that institution shall make tuition free therein for the sessions of 1871 and 1872 and 1872-3, with a view, and in the expectation that said Medical College shall, on some terms, become a department of said State University, and in consideration of their so-doing, the Trustees of said State University agree in good faith to recommend in their report to the Legislature of Indiana at its session of 1873, to make an appropriation which shall enable them to pay the Professors of said Medical College

at least *three hundred dollars* each, a year, for each of said years' or sessions, and also to give to said Trustees power to adopt, on terms satisfactory to said faculty of said Medical College, the said College as a department of the State University, and place it upon an honorable footing, and in case such legislation can be obtained, the Trustees agree to carry out the foregoing propositions in good faith.

WM. HANNAMAN,
W. C. DE PAUW,
W. K. EDWARDS.

The Indiana Medical College agrees to accept the foregoing proposition, and unite their efforts with those of the Trustees to consummate a satisfactory transmutation of said Medical College into a department of the State University.

This Wednesday July 19, 1871.

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| S. C. PERKINS, | } Committee. |
| R. T. BROWN, | |
| G. W. MEARS, | |
| | } Trustees |
| | } Med. College. |

In view of the plain statement contained in the contract which we have given, the words and meaning of which as we have seen have been wholly mistated by the Indiana Medical College in their circulars—for neither its corporate entity nor property was transferred to the State University, the certificate of Dr. Nutt, of the State University, will not have much weight; he either remembers the terms of the contract and, therefore cannot truthfully “endorse the statements” of the circular “as to the relation of the Medical School and University,” or else he has certified to a condition he knew nothing about. In either case it is not worthy of notice.

The Legislature *did not* appropriate any money at its session of 1873; the contract, therefore, ended at that time, but was renewed for two years longer by the University Board at its meeting in 1873, a fact that was recognized by the same body in 1874, at which time the true status of the Medical School was given in answer to a petition signed by numerous physicians throughout the State, asking the Board to establish a Medical Department without reference to any School then existing.

The Board appointed a committee who made a report, a portion of which we here insert:

“Your Committee also report that they have given the petition from the medical profession throughout the State a careful consideration asking that this Board organize a Medical Department in connection with the State University, *to be located at Indianapolis, and that this Board select the Medical Faculty.* Your Committee find the petition signed by a large number of eminent men in the profession throughout the State, whose request is entitled to consideration.

“Under a contract entered into between this Board and the Trustees of the Indiana Medical College three years ago, an arrangement was made by which the Medical College agrees to furnish tuition free of charge to all applicants, looking exclusively to the Legislature for any remuneration, and not holding the Board responsible in any particular for any pay or consideration, unless authorized by the Legislature. Under the contract, *which does not expire until the spring of 1875,* your Committee would report that this Board is not in condition to act on *the petition at this time,* and will not be until the expiration of the contract referred to.”

As to whether the “two or three members” wished to occupy the same relation with the University as given to the Medical College in the above agreement, we have but to refer to our written as well as oral objection made to the Board to any such a relation. Certainly it was not so close or valuable that it should be coveted or even accepted in such a form except by desperate men.

As to whether the contract shall be renewed in 1875, we do not pretend to know, but if it is, to what useful end? Certainly no *financial* advantage will result to the Medical School, and without that the *morale* support will amount to but little. It is freely admitted that the State Board did at all times fulfill their agreements in every respect, and we are assured that nothing in the announcement of the College of Physicians and Surgeons, or elsewhere is to be construed as a charge of bad faith upon the part of said Board of Trustees. But this does not alter the facts in the case. The Medical College received nothing from the State and only a pittance from

the Board out of their private funds, and however willing the University might have been to sustain the School as its Medical department, the School could not long exist without better financial arrangements. Believing that the Legislature *would not* furnish such needed aid, certain members of the Faculty wished to renew their former status, such as existed in 1869-70, when a reasonable fee was charged. This was the only way out of the difficulty. Their wishes were overruled by the Faculty, and seeing the prospects of a speedy destruction of the College, they resolved to step out and give the profession of the State a chance to establish a School upon a permanent basis.

Without having special reference to any School, it is evident that *permanency* is one of the essential elements of all educational institutions of this description; no medical student wishes to graduate from a College where decay has commenced either in consequence of its form of organization or otherwise, and those who left the Faculty, deemed it but their duty to join in any effort the profession at large should make. The names of the Board of Trustees of the College of Physicians and Surgeons of Indiana, being those of representative men throughout the State, is no doubt sufficient guarantee that the efforts made will be sustained.

In this same circular it is asserted that "the Indiana Medical College is the creature of the Academy of Medicine of Indianapolis, and received the sanction of the Indiana State Medical Society." Without question it was nominally created by the Academy of Medicine, and in a certain sense it was sanctioned by the State Society, but a brief history of what occurred about the time the School was instituted will develop the fact that it was not by the profession at large through the State Society, but by a trick of a few interested persons, that it was thrust upon them *without their consent*. At a session of the State Society previous to 1869, a Committee was appointed to mature a plan for the establishment of a Med-

ical College; this Committee was to report at the session of 1869. Said report was prepared and ready to be submitted to the Society for its action, when a certain Physician, notwithstanding he was aware of the action of this Committee, offered a personal report concerning a Medical School to be termed the "Indiana Medical College," established by the Indianapolis Academy of Medicine, with a Faculty, etc., complete. Another interested party moved its acceptance and thus it was passed through. Immediately as by previous arrangement, some one moved the recognition of the College by the State Society—carried. This is our information in regard to the matter. In this and no other way was the School formed, and thus was it recognized by the Profession. Will they acknowledge such an act as theirs? The profession never in any instance fairly recognized it, but have through representative men favored a School according to their original plan, to be controlled by the Profession of the State, and supported by moderate fees paid by those who desire its privileges.

The Circular asserts that "The College of Physicians and Surgeons" says that their organization was in response to the expressed desire of many of the prominent members of the profession in Indiana; and they moreover affirm, that more than three-fourths of the established physicians of Indianapolis have endorsed it!

This may be true; but it is rather strange that neither we nor the public heard of this desire or this endorsement till the information came to us in the modest paragraph above quoted."

It is not strange that either the public or the Indiana Medical College should not be cognizent of such a sentiment. It would be astonishing if the latter at least could be informed upon any such point, until they were made conscious of it through some such "modest paragraph."

As to the assertion made in the circular that "probably not a single one of the Grand Army of Trustees was

consulted in the appointment of the "first-class faculty," except perhaps four or five who were casually in the city attending a political convention," nothing need be said, the animus of this as indeed of the whole circular can clearly be discerned. If any Trustee was absent was it not his own fault or wish? The future will decide the policy of the School.

We deprecate quarrels in families and trust that none will occur between these two Schools. Surely the field is wide enough without seeking by either false representation or further attack to breed dissention. For our part we do not propose to enter into a quarrel, and only wish to give a true narrative. The profession will judge, and all things will right themselves.

More space than perhaps was proper has been occupied by this article. We deemed it a necessity, however, to place before those to whom the circular would be sent a true statement and permit them to judge for themselves.

THAD. M. STEVENS, *Indianapolis.*

CASE OF ABSENCE OF ANUS, WITH MALPOSITION OF AN IMPERFORATE RECTUM.

BY F. A. SEYMOUR, M. D., JEFFERSONVILLR, IND.

On the morning of May 23rd ult., Mrs. A. of this city was delivered, by Dr. N. Field, of twins; the girl weighing five pounds, two ounces, and the boy six pounds three ounces.

To all appearances, both were well formed and perfect, though the boy's abdomen was noticeably prominent.

The girl took the breast, had discharges from the bladder and rectum, and slept well. The boy, though micturating freely, had no fecal evacuation, refused the breast, was restless, and slept but little.

On the third morning the nurse discovered the absence of the anus, and sent for the attending physician, who, on his arrival, made an incision one-eighth of an

inch long through the skin, in the normal position of the anus, subsequently inserting a probe to the depth of half an inch through the subjacent tissue, without meeting any indications of a rectum. A dorsil of oiled lint was then inserted in the wound, and further interference temporarily deferred.

At 5 P. M. of the second day, by Dr. Field's request, I saw the case with him. The patient was found as above described; abdomen tumid and tympanitic, skin jaundiced, and the child seemingly threatened with tissues.

The usual depression between the nates was wanting, the perinæum presenting the appearance of a single continuous rounded eminence. The median raphè was tolerably well marked toward the scrotum, but disappeared toward the coccyx. On a line with the terminous of the coccyx, and five-eighths of an inch to the right, there was a minute depression in the skin one sixteenth of an inch in diameter, and of the same depth. There was no sign of an anal opening, but surrounding the point where the incision had been made, there appeared, when the child struggled, a very slightly marked oval elevation, but without discoloration, indicating the probable presence of the spincter. On consultation it was decided to continue the exploration, and if possible, reach the intestinal cavity. At Dr. Field's request, I proceeded to operate, assisted by himself and son, Dr. D. L. Field.

The child was placed in the prone position, on a large firm pillow, on the lap of an assistant. The thighs were drawn well apart, the skin between the nates put upon the stretch, and the primary incision extended upwards and backwards to the extent of five-eighths of an inch, and to the same depth. Using my little finger as a probe, the subjacent fibro-cellular tissue was gradually penetrated one inch and a quarter without coming in contact with the gut. Withdrawing the finger, the handle of a bistoury was substituted; but finding the resistance too great, I decided to enlarge the orifice in order

to obtain more working space. Inserting the blunt blade of a scissors curved on the edge, with a single snip, the opening was extended in a longitudinal direction to within three quarters of an inch from the coccyx.

The opposing tissue was then readily penetrated by my little finger; when at the depth of two and one-fourth inches, following the sacral curve, its point came in contact with what seemed a fixed sac of indefinable outline. The struggles of the child, however, did not impart the sensation of bearing down.

But feeling sure that the rectum had been reached, the wound was dilated with cross-blade forceps, and the pearly looking intestine came in view, filling the wound. It was not the free end of the rectum, but evidently the gut in its continuity extending transversely across the pelvis from left to right.

With the blades of the forceps still in the wound, I next introduced a blunt hook (ligature needle) behind the transverse portion of the presenting sac, and embracing it in the curve, after firm but steady traction, it was brought nearly to a level with the skin. Finding it impossible, owing to adhesions, to bring the terminal end of the sac into the perineal wound, it was decided to establish an outlet in the section within the grasp of the hook. A puncture was made with a spear pointed bistoury, and immediately there was an escape of gas and meconium. The cut was then continued across the rectum in a line with the perineal wound. It being impossible, without the employment of hazardous force, to bring the artificial opening in contact with the skin at the natural location of the anus, the margins of the intestinal wound were stitched to those of the perineal, beginning at its coccygeal end. Five sutures of delicate iron wire were employed. On the removal of the hook by which traction had been made, the child had a copious evacuation of meconium, and its crying ceased almost immediately.

The parts having been thoroughly cleansed, a strip of

oiled linen was inserted in the wound anterior to the rectal attachment, the entire wound was covered with a soft dry cloth, and the little patient, evidently much relieved, was put to bed with his mother. Not more than two drachms of blood were lost during the operation.

The abdominal swelling subsided at once, the rigidity of the muscles relaxed, and the babe slept quietly the whole night, and on the following morning took the breast eagerly. A few hours later, the jaundiced condition of the skin had entirely disappeared.

The attachment between the rectum and skin healed by first intention; the sutures being all removed on the ninth day. The remainder of the wound granulated nicely, with very slight discharges of healthy pus, and was healed in fourteen days. There was scarcely any tumefaction, and the only dressing used after the second day, was cold water. The fœcal discharges, though at first involuntary, after the tenth day, occurred at about the same interval as did those of the twin sister.

June 24th, 1874, thirty days after the operation, the child is healthy and well. The nates are well rounded out, depression natural. Artificial anus about half an inch in length, with an appearance of plicated folds around the margin, being a good imitation of the oval pucker occasioned by the sphincter.

Indiana Journal of Medicine:

The newspaper reports of the case of Miss Harding, poisoned by morphine, brings some questions of importance before the medical profession generally.

The first is in reference to the manner in which the treatment, and general management of this case was reported in the public prints. This cannot be full, if so, there is just grounds for criticism; if not full, it is very imprudent to permit such reports to come before the public.

Secondly, with reference to the just grounds for criticism. Were all the remedies and appliances used in the treatment of this case that are in the hands of, and known to the profession? Is it not now very clearly demonstrated that atropia will neutralize the effect of morphine? That its counter-acting influence can be produced when the patient is unconscious and cannot swallow; it being used by hypodermic injections. This remedy was not used in this case. Was a battery applied in the course of the phrenics nerves? We have no evidence from the report that any thing of the kind was applied. Were the stomach and bowels unloaded so as to prevent further absorption of the poison if any remained unabsorbed? Was any effort used to keep the patient moving, so as to physically counteract the influence of the narcotic? We do not say that these means were not all used, but the report places the profession of Indianapolis below the common standard of attainments and ability, giving no mention of the use of the means referred to.

In the August number of the New York Medical Journal, a case which must have been a very bad one, is reported by Dr. Trask, which was successfully treated by the use of the means and appliances referred to.

Thirdly, it has been rumored that the death of this young lady was not caused directly by the opium or morphine; that the history and sudden termination of the case does not warrant that conclusion, that malarial congestion was the immediate cause of death. With myself, there is no question about the use of the poison for the purpose of suicide in this case. But there is no evidence before the public to the effect that all proper means were used. Excuse me for expressing the hope that no more such reports come from the medical men of this city, to be criticised by the public.

J. W. H.

Preamble and resolution adopted by the Mitchell District Medical Society August 7, 1874:

WHEREAS, We hear with pleasure, through Prof. Thad M. Stevens, that there is an Indiana Medical College being organized under the name of the College of Physicians and Surgeons, which in its general plan of teaching promises to afford students of medicine all the facilities of a thorough medical education, which heretofore have only been attainable in the older cities; be it

Resolved, That the Mitchell District Medical Society declare themselves in sympathy with its aims, and heartily endorse it to the profession generally and to all students of medicine.

Resolution was adopted by the Society unanimously.

G. W. BURTON, M. D., *Secretary*.

Proceedings of Societies.

WAYNE COUNTY MEDICAL SOCIETY.

CAMBRIDGE CITY, JULY 2nd, 1874.

Society met at the office of Dr. Bradbury, and was called to order at 11 o'clock, A. M., by the President Dr. Blount.

Members present, Drs. Blount, Bradbury, Dougan, Hadley, Haughton, Hibberd, Johnson, Kersey, Pennington and Sweeney. Drs. Mendenhall of New Castle, and Dr. Jones of Whitewater, were also present.

The minutes of the previous meeting were read and approved.

Dr. Hibberd presented the name of Dr. Abijah Jones, of Whitewater, for membership; application referred to the censors who reported favorably, and on ballot, Dr. Jones was unanimously elected a member of the society.

On motion of Dr. Bradbury, Dr. Munhall, of New Castle, was elected an honorary member.

Dr. Blount read an address on the "Responsibility of a Physician," calling attention to the fact that the physical welfare of individuals and communities, depend upon his knowledge and skill, and urging the necessity and duty of industrious study, the cultivation of habits of careful observation and independent thought and the use of every means of obtaining knowledge, such as Medical Colleges, Societies, Journals, &c., while to round off and complete his character he should be, in his daily habits and manners, at all times a gentleman, always using his influence in favor of morality and virtue.

AFTERNOON SESSION.

Called to order at 1-15 o'clock by the President. Dr. Daily was present in addition to those present at the morning session.

Dr. Hibberd read a paper which he had, entitled "Pot Pourri Médicale," but assured the society in advance that the title was the only French part of it.

It treated of pain, its nature, cause, and effect on different people. The varying ability as well as disposition of different members of the human family to endure its pangs, were happily illustrated by references, such as that to the hysterical hypochondriac on the one hand, whose morbidly imaginative mind tortures him or her with every form of disease and pain, while at the other side of the scale, was placed the Martyr roasting for his religion, and yet singing hymns of joy and thanksgiving. In the second part of his paper, "Broad Generalizations from Narrow Bases," he called in review some of the late teachings in regard to injuries of the head, protesting against the adoption of rules to govern all cases, and demanding that each shall be examined on its own merits, and treated in accordance with its own special indications. A number of cases were given from his own practice in which the treatment had been directly the opposite of that taught, and the results most happy. "Hypermedication," was a review of some cases in

his own practice, and that of cases in the practice of others that had fallen under his observation in which it was afterwards discovered that in the effort to cure, greater or less approach had been made to killing the patient; in this section of the paper was described the Doctors' Stolid, who go on in the old way, never forgetting old or useless ideas, never learning the new or valuable; he also reminded those present that the world is given to lying, and closed by a description of the life, qualities and final reward of the "Good Doctor."

The paper was well received, Dr. Boyd criticising the surgical treatment of one of the cases detailed.

Dr. Bradbury from the Committee on Medical Elixirs, reported that the formula proposed by the Committee of the American Pharmaceutical Association, offered an agreeable and suitable menstruum for the administration of the alkaloids and bitter tonics in adult cases, but the amount of alcohol contained in it was such as to render it unsuitable for children and therefore not a proper preparation to be recommended for general use or be made officinal, and on motion of Dr. Bradbury the Society refused to recommend its adoption into the Pharmacopia.

Pending the vote on Dr. Bradbury's resolution several members took occasion to express their views on the so called elixirs so profusely offered to the profession by the manufactory. Dr. Hibberd calling attention to the fact that manufacturers of semi-proprietary medicines were in the habit of sending to Physicians samples of their goods accompanied by circulars in which their virtues were extolled, and enumerating the diseases in which they were to be used. He denounced such action as an outrage to decency and an insult to the profession, and expressed himself in favour of having nothing to do with such preparations, believing the pharmacopia contained a sufficient variety of drugs and their preparations of known strength to meet nearly every requirement of the practitioner.

Dr. Kersey said that he enjoyed being severe at proper times and that he could usually command a sufficient degree of severity of manner to answer his purpose, but he was utterly unable to treat, as they deserved to be treated, the agents of the manufacturers of such goods, who he said would call at the physician's office, and on meeting with flat refusal to try, or recommend, or have anything to do with their wares, would report to the Druggists that Doctors so and so, would be glad to have their preparations kept in the place, and thus endeavor to effect a sale by falsely representing as favorable to their goods physicians who could on no account be induced to use them.

Dr. Haughton had been fortunate in the use of some of these preparations, finding them occasionally to serve him better than officinal preparations. He instanced especially one of the elixirs of bark and iron. He wished to know if Drs. Hibberd and Kersey would exclude Sugar Coated Pills and Granules from practice. Dr. Hibberd in reply stated that sugar coated pills were not intended to be included in his remarks, nor approved new preparations made by reputable manufacturers and submitted to the profession for trial upon their merits. What he objected to was that manufacturers should prepare preparations, obtain fictitious and fraudulent certificates purporting to be from physicians who had used them, and then impudently offer them to educated scientific members of the profession with instructions to use them in certain diseases and in given doses. For his part he not only would not use such articles but he would refuse to use even officinal preparations manufactured by such houses.

Dr. Sweeney, who had been appointed at a previous meeting to prepare an essay on Puerperal Fever, reported that he had not felt justified in doing so, from the fact that his own experience would not enable him to say anything on the subject either in commendation of, or criticism on the approved teachings. In about two hund-

red cases of Obstetrics that had occurred in his practice, he had not had one case of Puerperal Fever, but should he be so unfortunate as to encounter one in the future, he would treat on the opiate plan.

Dr. Pennington called up the question of Medical Ethics, and read several sections from the code; he referred to the fact that the State Society at its last meeting had shown itself unwilling to inflict penalties upon an offending member against whom abundant proof was found, and that by such a course the profession was already scandalized at home and in danger of being disgraced abroad. He believed in the code, and wished every Doctor to observe it, but he desired that its observance should be insisted on.

Dr. Haughton spoke in favor of the strict enforcement of the code. He said that members of the regular profession nominally in good standing, were in the habit of resorting to unfair and unprofessional methods of advancing their interests to the detriment of the law observing. He also referred to the case which had been cited and regretted deeply that the State Society had evaded its duty in the premises. Unless the different bodies would take more interest in the matter, and show that the code was a living law with penalties attached to its violation, he for one would favor its abolition, as he did not believe in retaining a law in theory, that in practice was a dead letter.

Drs. Kersey and Hibberd announced themselves as in favor of the code, but did not believe in its inflexible enforcement. Let it be regarded in the light of all other laws, to be dispensed with a certain degree of elasticity. Dr. Hibberd reminded the members that if the Supreme Ruler of the Universe would administer his laws in the spirit it had been demanded the code should be in force, it might subject all present to considerable inconvenience.

Drs. Boyd and Bradbury thought the views of Drs. Kersey and Hibberd not sound and liable to inculcate a disregard for the code and weaken the influence it now exerts.

Dr. Pennington believed that the code having been adopted by Medical Societies should be enforced in all its parts.

Dr. Hibberd suggested that those who know of violations of the code, should make complaint against the offenders instead of demanding its abrogation. The code is sufficient, but alone it can do nothing, there must be charges, witnesses and trial in order to show its efficiency. It is not sufficient for members to make indefinite assertions that its provisions are being violated, but if they feel aggrieved they should exercise their privilege and discharge their duty by bringing charges against the offenders.

Dr. Kersey thought the code had done much to maintain the character of members, some of whom have been guilty of acts that have bordered closely on or have been palpable violations of its provisions. A few years since, when the subject was before the Society it was found that there was not one member who had not in some way either carelessly or ignorantly violated some of its provisions; if we had then adopted the policy now asked for, the Society would have had to expel itself bodily. The code in his estimation, was of great value to the profession, and each member should endeavor to be guided by it, but he was not willing to disgrace a brother for a trifling slip, neither willing to throw away the law because an occasional petty violation was not punished, on the same principle that he would not reject the Bible and the Christian Religion because each act of sin is not visited by the immediate and visible punishment of the offender.

Dr. Johnson thought the code good in its purpose and in its results, and that it should be maintained. At this juncture the President notified the Society that several papers were yet to be read and called on Dr. Kersey, who read the following report of a case:

Mrs. T. died of Brights Disease at 11 o'clock P. M., June 23, 1874. She was 35 years old, had been married

about eight years, was a well organized woman, of light complexion, nervous temperament, and remarkable for general pallor of surface. She was married at 27, and lived with her husband until death. She had been six times pregnant and had as many premature labors, and in all but the first was under my care; her second pregnancy terminated with the third month and was not remarkable for anything I now remember, except the keen appreciation of her misfortune in losing her offspring. I was called to see her March 4, 1870, in the seventh month of her third pregnancy, on account of a disordered condition resulting apparently from walking barefooted on a cold oilcloth; there was restlessness, nervousness, very scanty urine, and visible edema about the face and eyes, the pulse and breathing were frequent, she was pale and feeble and the edema increased. I soon observed an effusion of serum beneath the conjunctiva producing a broad ring around the corneæ such as to prevent the perfect closure of the eyelids, presently perfect blindness was developed, and next dullness, mental inactivity and stuper. The urine was scant, light and highly albuminous and the bowels were slow. About the end of the seventh month labor came on at the instance of nature, and in a week the outward symptoms had all greatly subsided, although they had steadily increased under my treatment for twenty seven days; the fœtus was still born. In November, 1871, she was again delivered of a still born seven months fœtus, but without any very marked aggravation during the last weeks of her pregnancy of her usual pallor, edema or other observable indication of embarrassed function of the kidneys. In August 1873, she was delivered at the seventh month of a living child, which only survived for a few hours. Her health on this occasion was about as on the last preceeding, she was delicate, bloodless, slightly edematous and feeble, but not sick, and resumed in a short time her place in the domestic circle. On the 11th of June, she was again delivered of a seven months fœtus, which

afforded indications that it had been dead some time. The mother got a trifling fall a day or two before labor began to which she was inclined to attribute its induction. I think this inference was correct, she was extremely pale, looked bloodless and vomited frequently till the labor terminated, and immediately on the expulsion of the placenta which followed the foetus with very little delay, I should think near two pounds of dark coagulated blood was expelled which must have lain outside the vessels for some time. After delivery she at once felt quite comfortable, entirely free from both pain and sickness, and seemed to enjoy a fair prospect of speedy and favorable recovery. Prospects went on thus favorably till in a day it was noticed that no urine was secreted; on the fourth day she had passed none nor could I obtain a drop by the careful use of the catheter; on the fifth day she passed about one fluid drachm, and this had increased by the tenth day to nearly an ounce in twenty four hours, at which time she lost consciousness, and the bowels which were kept quite free, were after that involuntarily moved, and the precise condition of the urinary secretion was not positively known, though to judge from the increasing oppression it seems probable there was little or no increase. She suffered no pain after delivery, always professed to be entirely comfortable except paroxysms of extreme restlessness which sometimes lasted several hours together, and sickness of stomach, and vomiting which occurred first on the sixth day, and continued occasionally till the last. The matters vomited were fluid, deep green, changing into blue. A disposition to sleep too much was quite apparent on the seventh day, which increased to the last. After consciousness was entirely obliterated to all appearances, the automatic movements of her body and limbs were so perfectly natural and so like they had been from the first both in frequency, propriety and even delicacy, as to suggest a doubt whether they were not prompted by a clear mental perception of propriety. Eight hours be-

fore her death the patient was attacked with a violent convulsion, which continued two or three minutes. The bowels were kept freely open from an early day of her illness till the last. Some mild diuretics were used, fomentations were applied to the loins and the patient was encouraged to drink freely. The urine was not examined on the occasion of this last illness for we at no time obtained a sufficient quantity to admit of the ready application of the usual tests.

Dr. Haughton thought the case one of acute albuminuria developed in each successive pregnancy, and that in the intervals the patient was free from disease of the kidneys; he did not believe the condition of apparent health enjoyed by the patient during the intervals of pregnancy compatible with the existence of chronic Bright's disease.

Dr. Hibberd asked if the urine had been tested for albumen during the intervals of pregnancy.

Dr. Kersey replied that it had not, that during each convalescence it had diminished in quantity, but that he had not examined it during the periods in which she considered herself well. His theory was that Bright's disease was developed during or prior to her first pregnancy, but that the amount of the glanular structure of the kidneys not impaired by granular degeneration was sufficient to answer the purpose of the economy during health and while no unusual demand was made on the system, but that when she assumed the burden of pregnancy the organs were no longer able to obey the requirements of the system, hence edema, convulsions, and abortions.

Dr. Hadley presented a paper on Endo-Metritis. The rules for diagnosis and treatment were substantially those taught in the late works on the subject, with the exception that he used a *cylindrical* speculum by which after dilatation of the cervix he was enabled to verify his diagnosis by the sense of sight and through which he made applications to the uterine cavity. Other mem-

bers found it difficult to understand how the cylindrical speculum could be used so that the uterine cavity could be seen. A considerable amount of discussion followed the reading of this paper, and numerous methods of treatment were suggested ; a paste made of sulphate of zinc and morphia brushed on the surface with lint, had been found useful by Dr. Boyd.

Dr. Haughton read a paper on Fractures, calling attention to the responsibility surgeons were compelled to assume in their treatment, the increasing disposition on the part of patients to bring suits for mal-practice, and often the too willing adverse testimony from jealous competitors in practice. He referred to the discrepancy that often existed in the testimony of experts who were called to testify in the courts, and regretted that there was as great a want of unanimity among the great authors. The only points on which they are agreed, are the great frequency of fractures and the difficulties in the way of their successful treatment. In the details of treatment, writers are constantly at variance with each other, and often contradict themselves. Upon one thing the teachings of modern times has settled, that is, the necessity of perfect coaptation and complete immobility of the divided ends of the bone. Dr. H. attacked the views set forth in Holmes' Surgery, in which it is advised that in cases characterized by excessive ecchymosis, or if before the patient is seen much inflammation has supervened, immediate reduction is not to be attempted, but measures are to be used to combat the inflammation, and reduction only effected after it is subdued. As well as that class of cases attended by spasm, in which the spasm is to be overcome by opium or chloroform before reducing the fracture. Dr. Haughton thought such teaching pernicious, and that it was by following the advice of this writer and others high in authority, whose teachings were as full of error that many surgeons laid the foundation for mal-practice suits ; he quoted from Le Gros Clark, South, Chelius, and others, showing that

the same heresy had been indicated from an early day. In his own practice he had fully disproved these several propositions as well as that of Syme of Edinburgh, viz: that extension should be abandoned, and that he had obtained satisfactory success by keeping in mind the necessity of prompt reduction, coaptation of the parts and complete immobility, employing when practicable extension and counter extension to assist in accomplishing these objects. He had tried various appliances and had found many of them extremely valuable, but believed that Woods' Hammock-Splint lately offered to the profession would by filling more indications prove of greater value than any yet invented.

The hour for adjournment having arrived no opportunity was offered for discussing this paper.

Dr. Boyd was appointed Essayist for the next meeting, and Dr. Hibberd a committee on Epidemics to report in one year.

On motion the Society adjourned to meet at Hagers-town on the second Thursday in October.

D. H. DOUGAN, *Secretary.*

THE BRAINARD MEDICAL SOCIETY.

Proceedings of the thirty-seventh Meeting.

The Society met in the Christian Church, in Star City, Pulaski County, Indiana, Thursday, June 4th. Dr. W. T. Cleland was chosen President *pro tem*.

After the necessary miscellaneous business was transacted, Dr. W. T. Cleland of Kewanna, read a paper on the "effects of an excessive use of Alcoholic stimulants on the human system." All the symptoms from its early use by the respectable moderate drinker, to the horrible and deplorable condition of the confirmed inebriate, suffering all the terrible agonies of *delerium tremens*, were most eloquently and graphically portrayed.

The great importance of the cause of temperance; the alarming increase of the use of alcoholic stimulents, and with it, in the same proportion every species of crime; the duty of the medical profession to use every effort to stay the ravages of intemperance, were fully discussed by every member present. Judging from this discussion the Brainard Medical Society may safely be recorded as being thoroughly and unequivocally on the side of Temperance and reform.

The Secretary was directed to prepare the paper for publication in the Winamac and Logansport papers.

The pathology and treatment of *delerium tremens* was then discussed.

Dr. A. R. Thompson of Kewanna, stated that he had treated only a few cases, in nearly all of which he had resorted to alcoholic stimulants, and regarded their use of much importance. Had had one case in which they could not be used in any sized doses, as they produced coma.

Dr. Pattison remarked that he had had considerable experience in this disease, but had never seen a case in this vicinity. He could not agree with Dr. Thompson, as to the propriety of giving alcoholic stimulants, as he considered it extremely bad and dangerous practice—much like adding kerosine to fire to extinguish it. If his patients had to die, he wished them to die sober. Where stimulants are needed we have a much better one in carbonate of ammonia. Has used with success, valerianate of ammonia, bromide of potassium and morphine. More recently has used hydrate of chloral, quinia, carb-ammonia and morphia. Considers hydrate of chloral the best agent to produce sleep, its action being prompt and certain. In 1862 he was steward of a Military Hospital in Louisville, Ky., and had in charge 300 men of the lowest, filthiest, and most debauched class, who always had venereal disease bad enough to prevent being sent to the front. Every night there would be from one

to ten or more cases of delerium tremens. The surgeon in charge would order one drachm of morphiue in a pint of whisky, a teaspoonful of which was given, as often as indicated to produce quietness and sleep. Nearly every case got well.

Dr. Cleland regards the poisonous action of alcohol as being the reverse of a narcotic. It has a special action on the brain. The spinal cord is never affected. After death the taste and smell of alcóhol can easily be detected in the substance of the brain. He agrees with Dr. Pattison that alcoholic stimulants should be avoided. Cannot understand how, when the system is already saturated with a poison, any further addition of the same poison could add to the recovery of the patient. If by any means the patient can be made to sleep, he is safe. He regards opium or morphine of the first importance, owing to the excessive irritability of the stomach often attending, it may be extremely difficult to administer any remedy, until this is removed, for which purpose he recommends Bismuth—either the valerianate, or sub-carbonate.

R Sub-Carb. Bismuth $\bar{z}.j$;
Gum Water fl. $\bar{z}.vi.$;
Es. Cinnamon to flavor.

Dr. Rea had always relied successfully on morphia; if there was too much irritation of the stomach to retain it, he would use it hypodermically. He does not regard the disease as being very fatal, as the worst case he ever saw got well in the usual time, without medicine of any kind.

Dr. Pattison presented a case for examination, of a young man, 18 years old. He was taken sick about two months ago with pain in his breast, cough, and slight fever. Domestic remedies were prescribed for several days, without an appreciable effect. When Dr. Pattison visited him there was fever, tongue dry and glossy; dullness and crepitation over the whole of the left lung, and crepitation in the lower part of the right. Ordered

quinine and carbonate of ammonia; also brandy freely, every 4 to 6 hours. A hot poultice was applied over the whole chest. The bowels became tympanitic; the tongue brown, and pulse 110 to 120. The treatment was continued for about two weeks, when a blister was applied to the left side of the chest, which appeared to produce some resolution, but dullness and crepitation still remained. A strong stimulating and tonic course of treatment was maintained, and the symptoms gradually improved, until the patient was able to be about. A week ago he removed his flannel underclothes, and took cold, since which time he has been much worse.

There is now dullness on percussion over the left lung; also the lower portion of the right. There is a peculiar purring sound, more observable in the upper part of the left lung. There is also a constant and extremely harassing cough, which nothing has relieved, and which interferes very much with his rest and comfort. Has taken morphine, Hoffman's Anodyne, and tinct. of sanguinary, but without benefit to the cough. The appetite and digestion are good—has taken chlorate of potash, hydro. chlorate of ammonia, and freely of rich cream, has refused to take cod liver oil.

Dr. Cleland thinks the case complicated with congestion of the liver; to relieve which would prescribe

R Blue Mass grs. viij.;
Ext. Belladonna, grs. x.;
Sulph. quinia, grs. x. vi.:
Pulv. Acasia, ʒ. j.

Mix and divide into 16 pills and give one pill three times a day. If there is costiveness, add podophylin or leptandrin.

Dr. G. W. Thompson, saw the case with Dr. Pattison, when the patient was at his worst, and had no doubt but he had typhoid pneumonia. Had entirely concurred with all that Dr. Pattison had done—thinks that at this time cod liver oil is imperatively indicated.

Dr. Nafe is of opinion that if the cough is not soon

relieved it will wear out the life of the patient; and for this purpose would prescribe a strong decoction of wild cherry bark, saturated with chlorate of potash, in two tablespoonful doses every two hours.

He mentioned two cases of incessant coughing that were speedily relieved by this prescription, for which the usually prescribed remedies had been for a long time employed without benefit.

Dr. Pattison reported the case of a lady, 40 years of age, who has had very poor health for a long time. A short time ago she accidentally swallowed a piece of a saucer; it was of a triangular shape, two and a half inches long, and three fourths of an inch wide, at the widest part, terminating in a sharp point. It lodged in the trachea. The patient by squeezing the trachea, with her hands, below the offending crockery ware, with much pain and difficulty, dislodged, and finally forced it out. This was followed by a great amount of inflammation and swelling, so that the trachea was entirely closed. She was unable to swallow any thing for three days. On the fourth day, with considerable difficulty, the Doctor passed a small gumelastic catheter by the swelling, through which he injected into the stomach, milk and other fluid nourishment. Mercurial Ointment was rubbed on the surface until it produced slight ptyalism, one side of the swelling had suppurated and was discharging matter. She is now able, with much difficulty, to swallow fluids. There is also cough, and wakefulness.

Dr. Nafe reported a case of *Convulsions*, in a man 55 years of age. On rising in the morning he complained of dizziness, a severe pain in the head, particularly in the orbits of the eyes, and a feeling as if the eye balls were being forced out. There was a disposition to fall backwards every time the patient attempted to look up. He drank a cup of ginger tea, and ate breakfast, but all the time had a terrible headache. This continued to increase until he became delirious, and at 12 o'clock,

noon, was taken with a convulsion, lasting ten or twelve minutes. After it subsided his head remained drawn backwards, with rigidity of the limbs. At one o'clock, he had another convulsion, equally as bad as the first. He was ordered a dram of tincture of gelseminum and 20 grains of bromide of potassium every 20 minutes, for an hour. This appeared to check them until 4 o'clock in the evening, when they returned with increased severity. Indeed they appeared to have gained in intensity, from the interval of rest they continued to recur at intervals of a half to an hour, until 12 o'clock at night. In addition to the above prescription, hydrate of chloral, and inhalations of chloroform were administered. After the convulsions subsided, fever of considerable intensity supervened, with the pulse up to a hundred. Veratrum was given until the fever was subdued, and then quinine. The patient made a good recovery.

The Society then adjourned to meet in Winamac, Thursday July 2d, at 10 o'clock, A. M.

J. W. C. EATON, *Secretary.*

FOUNTAIN AND WARREN MEDICAL SOCIETY.

ATTICA, JUNE 11, 1874.

The Society met at the Presbyterian Church pursuant to adjournment, Dr. Colvert presiding in the chair. On calling the roll, all the officers and about half of the members were found to be present.

Dr. Johnson, of Harveysburg, proposed the following gentlemen for membership: Dr. Gillem and Dr. Mackie, both of Parke County; but they not being present the question of admission was postponed.

The Secretary reported a letter from Dr. Fine, one of the committee appointed to ascertain the professional standing of the Sugar Creek Union Medical Society, which letter was read, and also an explanatory letter

from the officers of said society, which was not satisfactory, as it did not disclose the status of that society or of its members.

Dr. Watson offered the following resolution, which was adopted, and the secretary was ordered to communicate it to the Secretary of the Sugar Creek Union Medical Society:

Resolved, That this Society can recognize no other Medical Society not known to be governed by the Code of Ethics, adopted by the American Medical Association, and recognized by the Indiana State Medical Society as auxiliary to it.

The amendment to the Constitution, offered by Dr. Weldon at the annual meeting, was now on motion taken from the table for action thereon, it reading as follows:

"No member of this society shall refuse to meet in consultation with another member of the Society in consequence of any personal feud, or dislike, or unfriendly feelings, either toward the attending physician or the sick person, as it is unprofessional as well as improper for a physician to permit his feelings or prejudices to interfere with his duties to his professional brethren or to the public. Any infraction of this article shall subject the offender to be disciplined by the Society, in accordance with the provisions of Article 7, Section 1 of this Constitution. This amendment, if adopted, to become the 12th Article of the Constitution."

Upon being put to vote, this amendment was adopted by a two-thirds vote of the members present.

The following pledge was adopted, as a prefix to the page on which the members sign the Constitution:

"We the undersigned, having been admitted to membership in the Fountian and Warren Medical Society, do hereby pledge our sacred honor to observe in our practice the Code of Ethics adopted by the American Medical Association and the Constitution and By-Laws of this Society."

AFTERNOON SESSION.

The members with their ladies, to the number of about forty, having partaken of a sumptuous dinner,

prepared in the best style of the Revere House, repaired to the church at two o'clock.

Dr. Watson made a written report of the proceedings of the State Medical Society, he having represented this society therein, which report was placed on file.

The retiring President not being present, his Val-
edictory was not delivered.

Dr. Weldon read an essay by Dr. H. Mandsley, of London, the subject being Sex in Mind and Education.

Dr. T. F. Leech, of West Lebanon, made a verbal report of a successful case of Lithotomy, and exhibited the calculus, a very large one, measuring 2 by 1 1-2 inches, engaging to file with the Secretary a written report in a short time.

Dr. Moore, of Warren county, reported a severe case of milk sickness in which the patient made a prompt recovery; the treatment being whisky in frequent small quantities.

The President appointed the following gentlemen as essayists for the next meeting: Drs. Case and Kellenberger, of Attica.

Dr. Rice of Attica, offered the following resolution, which was adopted nem. con.:

Resolved, That the agitation of the temperance question in this country is calculated to better the condition of mankind, physically, mentally and morally, and this meeting heartily approves and endorses it.

At 5 P. M. the society adjourned to meet at Williamsport, on the third Thursday in October next, at 10 o'clock, that being the day appointed for the semi-annual meeting.

Reviews.

TRANSACTIONS OF THE MINNESOTA STATE MEDICAL SOCIETY 1872.

This Society met June 11th and 12th, 1873, and ad-

journed to meet, we cannot tell when or where, for by a strange oversight the Secretary has failed to place such information on record, at least we are not able to find it. The transactions are issued in a neat volume of 119 pages. After the record of the usual business, comes a semi-annual Essay by J. K. Bartlett, M. D., on "Insanity as a symptom of Brain Disease, its physical course of treatment."

It is without doubt a fair production, but right in the start the Doctor falls into the common error of trying to reconcile the two ideas of diseased mind and brain, and to escape the idea of mental *disease* and as he supposes, and as *one* theory will have it, the consequent possibility of *death* of the mind, he flies to that of brain or physical disease as the only possible cause of not only one form of *insanity* as *he* would understand it, but of any abnormal mentality, so called *sin* includes, we presume.

Why not let the matter rest, for the two sides to this question can never be explained any more satisfactorily than those of "free-will and necessity" etc., that "afore-time did agitate the school men without purpose." When he touches the causes of insanity and tells us that the *three great causes of insanity are hereditary diathesis, brain work and reduced vitality*, he treats upon something of practical interest, and his description of the manner in which these generally crop out is as good as the average; as to treatment, it is slightly expectant.

"There are no specifics in the medical treatment of the insane, and on general principles we can direct our remedies to promote the bodily functions and assist nature in regaining the general health, if impaired."

Upon turning over a leaf we find that the fifth annual meeting of the Society took place February 4th and 5th 1873, at St. Paul, Minn., with Dr. W. W. Mayo of Rochester, President. Dr. Sweney of Red Wing, was elected President for the ensuing year. Dr C. E. Smith, the Recording, and H. C. Hand, Corresponding Secretaries, both of St. Paul. Among the reports of commit-

tees, we notice the following from that upon medical experts, which was adopted :

“That we believe that the physician should fix his own fee for attendance as a medical expert.

“That it is our opinion that the fee should not be less than \$30 per day.

“That until some guaranty is given that the reasonable fee required by the expert will be paid, we should refuse to obey the summons.”

When will a similar just rule be insisted upon in our own State? Will petty jealousy or contemptible cupidity always bind us hand and foot in such cases? As it is now the legal gentleman uses us “for fools” in nearly every case. In this State we notice they are blessed with a State Board of Health as in Michigan. The new and vigorous leaves the fossils behind, be they even giants.

The annual address by W. W. Mayo, M. D., President, was on the “relation of physicians to the public and each other.” We see nothing of an objectionable nature in it, nor do we find any very strong points.

A paper on “tests for arsenic,” by Ferdinand Lessing, M. D., reported in his own way the two liquid tests for this substance, also the reduction and Marsh test. 'Tis pleasant to know that such things are well understood, but we are not certain whether they be original or copied from Taylor or elsewhere.

Another fine article on Catarrhal Inflammation as an Element in Uterine Disease, is presented by Franklin Staples, M. D., of Winona, Minn.

The anatomy of portions of the uterus are first given, viz: The mucous membrane of the cervix and body, muscular tissue, uterine vessels and nerves. Uterine catarrh is defined as “a form of inflammatory action of the uterine mucous membrane, the term being generally applied to the early stage, or to the subacute form of chronic endometritis, corporal and cervical.” The pathological condition of the membrane and the microscopical appearance of the discharge is given together with typical cases.

Phthisis as related to Syphilis and Scrofula, is a paper from H. C. Hand, M. D., of St. Paul, Minn. He discusses the following points:

"1st. Does syphilis ever produce phthisis, and if so, is it a frequent cause?

"2d. Granted that it does, in what way, and what form, the tuberculous or pneumonic?

"3d. Are tuberculosis and scrofula closely allied, or even identical?

"4th. What connection, if any, has syphilis with scrofula and tuberculosis?"

It will be seen by the following quotation that the Doctor has preceded Dr. Gross in at least public enunciation of views connecting phthisis with syphilis, provided we date Dr. Gross's first expression of such opinions from the last meeting of the American Medical Association:

"In the spring of 1870, beside many equivocal cases which were excluded from his note book, the writer had access to and partial care of fifty-five cases of constitutional syphilis; these were *all* examined as to the condition of their lungs and the result is given in the table below. With a single exception, a case of chronic pleurisy (No. 27,) the lung troubles have a history of having commenced since the initial, in most instances since the appearance of constitutional manifestations."

The Doctor agrees with Niemeyer, in believing that phthisical patients are not of necessity tuberculosis.

The report of the committee on Obstetrics, by Wm. L. Lincoln, chairman, is of some interest. Number of births reported, 701, highest ratio of forcep cases, 1 in 11, and a fraction, or 60 out of the whole number. One gentleman reports 55 cases of labor with 3 Craniotomy's or 1 in 18, but the ratio in general is 1 in 100; 699 out of 700, passing through labor without injury. Of Puerperal Convulsion, 5 out of 20 cases died. In "Inertia" of the Uteri, the hypodermic injection of Ergotine is highly recommended.

With 700 cases of labor are reported 115 cases of abortions. As to whether quinine is a parturient, we give a quotation from a portion of the report:

"I have no doubt as to the sedative influence of malarial poison upon the nerve centers of organic life and of the cerebro-spinal system, nor of the tonic and stimulant influence of Quinine upon the same centers. Hence the good effect of this medicine, which I have certainly observed, in cases of Uterine Inertia, both before and after delivery.

"Quinine, I have had evidence, acts as a parturient; so, also, does Morphine; especially does it have its influence in uterine contractions, when used as a suppository.' He reports a case, where labor had just commenced, as just dilating; one fourth grain morphine suppository brought on powerful uterine contractions, and the three stages of labor were completed in almost one continuous pain

"With regard to the parturient effects of Quinine, we confidently believe that it is a valuable agent when dilatation has taken place, and the pains are not strong; we are sure that we have observed labor materially shortened by the administration of five grains of Quinia Sulph. And again, when the pains are irregular in regard to duration and interval, we have observed, in half an hour after the exhibition of the dose of Quinine, regular pains as to strength and interval."

The report on Surgery is not very extensive, evidently only a preparation for another year. Appended to it, however, is a valuable paper on Ovariectomy in Minnesota, by Alex. J. Stone, M. D., St. Paul. This is a report of five cases of Ovariectomy, performed by Dr. Stone. *All fatal.* Would it have been the same had there been thirty?

A report on Diseases of the Nervous System, by Dr. Bartlett, of St. Peters. One from the Committee on Practical Medicine, and one on Necrology closes the volume. We regret we have not time and space to notice it more fully. The whole transaction is up to an average.

INFLAMMATION OF THE LUNGS, TUBERCULOSIS AND CONSUMPTION.—Twelve Lectures, by Dr. Ludwig Buhl, Prof. of Pathological Anatomy and general Pathology in the University of Munich, etc. Translated by permission from the second German edition. Matthew D. Mann, M. D., and Samuel B. St. John, M. D. G. P. Putnam's Sons, New York. Bowen, Stewart & Co. Indianapolis.

Here we find in twelve lectures an exhaustive essay on Catarrhal, Croupous and Desquamative Pneumonia, Cirrhosis, Tuberculosis, etc. Catarrhal Pneumonia, so called, he asserts, is no pneumonia, but a *capillary bronchitis*. That croupous pneumonia is but a *superficial* inflammation. Of desquamative Pneumonia he says—

“From this process the disease takes its name, the changed cells separate themselves from their bed and from each other, they desquamate, and thereby show the most complete analogy with the like-named inflammation of the kidneys (parenchymatous consecutive nephritis.) *As, in the latter, the swelling of the parenchyma, by reason of serious infiltration, gives the reason why the epithelium desquamates, so also in the lung-inflammation in question. While then, in catarrhal and croupous pneumonia, the principal feature of the process is to be sought in the quantitative and qualitative change of the secretion, on the other hand, in desquamative pneumonia, the main point is the swelling of the stroma which holds the vessels, of the alveolar walls and of the interstitial tissue, and there is no special secretion.*”

And again :

“I was, perhaps, the first to observe the facts bearing upon this subject, I have to-day nothing absolutely new to communicate. On the other hand, I shall try to show *that its present pathological significance as catarrhal pneumonia is not correct, and shall seek to bring forward a new conception; to establish genuine desquamative pneumonia as a distinct disease, having several grades, and shall charge it with being the preliminary stage and companion of significant, dangerous processes, lung-phthisis and tuberculosis, by bringing it into genetic connection with these conditions, which are already more or less understood.*”

Cirrhosis of the Lungs is held as a result of desquamative pneumonia. In his article on Cheesy Pneumonia, he says—

“No other condition ought to be confounded with the disease in question. If, for example, from a theoretical stand-point it is not to be denied that cheesy degeneration may occur in catarrhal pneumonia and in very rare cases of croupous pneumonia, yet these inflammations

do not deserve the name "cheesy pneumonia." *Neither from catarrhal nor croupous pneumonia does cheesy pneumonia develop, but solely and alone from necrosing desquamative pneumonia.*"

Our space will not permit notice of all subjects treated of, but the following extracts will show the author's views as to tubercles and tuberculosis:

"Ever since I made my debut as a teacher in 1847, I have constantly entertained the idea the *miliary tuberculosis is a disease due to specific absorption and infection.*"

"Call to remembrance now, the description which I previously gave of genuine desquamative pneumonia, and which I declared occurred together with tuberculosis. You see, then, that an *acute miliary tuberculosis of the lungs*, considered from a clinical stand-point essentially as a local disease, is a *desquamative pneumonia*, which is only distinguished from the pure genuine form by the appearance of giant cells among the growing alveolar epithelium."

"1st. *The foundation for the development of a miliary tuberculosis is a cheesy mass.* The taking up into the blood and lymphatics of the constituents of such a mass, causes the multiple development of tubercle (auto-infection? The *special irritant* then, which I mentioned in a previous lecture, is found—it is an *infection.*"

And as to Tubercular Pneumonia, the following is of interest:

"4th. We are thus forced to the adoption of the last of the four definitions, which is, that *only that inflammation can properly be called tubercular, which not simply by chance, but by its own inherent qualities possesses the property of necessitating a production of tubercle-lymphoma and of having as in the third case the appearance of the lymphoma co-incident with the inflammation, and of having them confined to the tissues in which the inflammation takes place.* This definition agrees equally well with our conceptions both of the inflammation and of the tubercles; and applying it, we can no longer have any doubt as to which of the previously mentioned inflammations of the lungs deserves the name of tubercular. *Cheesy pneumonia*, with its exuberant growth of cells in the endothelium of the lymphatics, not only conditionally, but by its very nature, possesses the necessary conditions for the future production of tubercles, and when they do occur the

lymphoma remain confined to the inflamed lung; it can then claim as a synonymous title the name *tubercular pneumonia* (*Laennec's tubercular infiltration*.)

"The essential *pathological* mark of distinction would be the *absence* of any *center of infection*; for the tubercular pneumonia is to a certain extent primary, while the *acute miliary tuberculosis* is to the same extent *secondary*, that is, the *result of infection*.

"If now we wish to reconcile these facts, we must admit that there are two methods of occurrence for tubercle-lymphoma, the *secondary miliary tuberculosis due to infection*, and the *primary tubercular inflammation*."

No one interested in the study of the subjects treated upon, should be without a knowledge of what is contained in this work, minute yet cleared.

LECTURE III, OF THE TONER LECTURES.—Instituted to Encourage the discovery of new truths for the advancement of Science. This lecture is by J. M. De Costa, M. D., on Strain and Over-Action of the Heart.

The institution of this course of lectures is but another instance (would there were more such) of the enthusiasm evinced by individuals in the cause of science. While government can do much in providing means, it must find the working force in the domains of science. Girard left his fortune to a good project, but really we do not think that the good it will be the means of accomplishing exceeds that which may be done, though the present bequest of Dr. Toner; though no magnificent institutions claims the attentions, still good in a silent way, to a greater number may be dealt out, the health and lives of the people at large, is of more value than the successful prosecution of many charitable or beneficiary institutions. We would have both, but relinquishing one we would take that which first assumes to educate the popular mind and form public opinion. More interesting cases are here given, illustrative of the effect shown, and especially by overwork upon the heart. The effect of occupation, amusements, etc., are noticed. The author does not consider

that either Rowing or Base Ball has a real tendency towards producing diseases of the heart, although those who find inconvenience from such sports should desist therefrom. The necessity and propriety of rendering popular instruction in preventive medicine is fully recognized by Dr. Da Costa.

"The public, in the matter, err through ignorance, and it is our place to show them that the heart will not, any more than the brain, endure incessant and exhaustive labor and excitement; that there are heart-weary as well as brain-weary persons; to point out how some occupations predispose to the disorder more than others, and how, therefore, the dictates of science, humanity, and true economy, alike demand that they be less continuously pursued; to make clear to them that certain habits—such as bolting the food, and constantly rushing after cars—may lead, indirectly or directly, to consequences little thought of; and how it may be the heart that bears the brunt of the irregularity and abuse, and not the organs which would appear the ones most likely to suffer. And you and I must make it part of our duty to impress these truths, and thus to prevent those slight beginnings of ailment which we both know may have grievous endings."

THE PHYSIOLOGY OF MAN, VOL. V.—The fifth and last volume of Dr. Flint's great and exhaustive work on Physiology completes the labors of eleven years devoted to the subject, and places before the profession the fullest and latest views of the most eminent physiologists of the day on the important branches included in the title—the Special Senses, and Generation. The distinguishing feature of this work is that nothing is taken for granted. The author has thoroughly sifted and weighed the opinions of his contemporaries, and has held fast only those things which he has found to bear the test of actual experiment and personal observation.

The first chapter treats of the sense of touch, muscular sense and sensibility, the tactile corpuscles, and the venereal sense.

The second chapter takes up the olfactory nerves, thei

anatomy and physiology, and their relations to the sense of smelling and tasting.

Chapters III., IV., V., and VI., are devoted to the optic nerves, the anatomy of the eye, refraction, vision, the functions and mechanism of the iris, the muscles of the eyeball and eyelids, the lachrymal apparatus, etc.

Chapters VII., VIII., and IX. deal with the auditory nerves and the sense of hearing in all its relations including the physics of sound, the appreciation of harmony, discord, etc. This necessarily requires a full consideration of the anatomy and physiology of the various parts of the auditory apparatus.

Chapter X. is devoted to gustation and the nerves of taste, the tongue and its functions, facial paralysis, etc.

In Chapter XI. the author opens the subject of generation with a general view of the female sexual organs, the ovaries, Fallopian tubes, uterus, and the erectile tissue concerned.

Chapter XII. treats of the ovum and ovulation, puberty and menstruation, changes in the pregnant uterus, the corpus luteum, etc.

Chapter XIII. gives a full account of the male organs of generation, the testicles and secretion, the glands of the urethra, and the changes in these organs from infancy to old age.

Chapter XIV. is on fecundation, the part of the male and female in the reproductive process, the entrance and destination of spermatozooids, the influence of the maternal mind on offspring, etc.

Chapter XV. treats of the segmentation of the vitellus and formation of the membranes and placenta; Chapter XVI. of the development of the embryo, and the osseous, muscular, cutaneous, and nervous systems; Chapter XVII. of the development of the alimentary system, the respiratory system, and the face; Chapter XVIII. of the development of the genito-urinary organs in both sexes, and of the circulatory system.

The work closes (Chapter XIX.) with an admirable view of the subject of foetal life, a consideration of development after birth, maturity, the decay of age, death, and the resolution of the body into its original elements.

It is not too much to say of Dr. Flint's complete work that it stands alone as a comprehensive treatise on human physiology, and that its publication marks an epoch in medical literature.

THIRTY-THIRD ANNUAL ANNOUNCEMENT OF THE ST. LOUIS MEDICAL COLLEGE.—Winter Session 1874-5, and catalogue for 1873-4. Lectures commence October 12, 1874. J. T. Hodgen, M. D., Dean.

Editorial.

AT the request of Dr. H. von Ziemssen, Prof. of Clinical Medicine at Erlangen, a number of the most eminent clinical instructors of Germany have undertaken to prepare, in a series of independent treatise, a complete encyclopædia of the practice of medicine; the incentive to this labor is the great need which has been felt the past year or two of a work, which fully corresponded to the present standpoint of clinical medicine. This Encyclopædia will embrace the entire range of Special Pathology and Therapeutics, and will be completed in fifteen volumes, large octavo, of from 500 to 700 pages each. The list of contents of each volume, herewith appended, gives the names of the Authors and the special departments which they have undertaken. While the work of each writer will bear the stamp of individuality, there will be an effort made to give to each subject the prominence and space due to it only—that the harmony of the entire work may be preserved.

It is designed that the Encyclopædia shall be, par excellence, a Practical Hand-book for Physicians; and for this reason especial attention has been given to clear and systematic arrangement. Terms of subscription, payable upon the delivery of each volume. Fifteen volumes, octavo, muslin binding, per vol. \$5.00; fifteen volumes, octavo, leather binding, per vol. \$6.00; fifteen volumes, octavo, half morocco binding, per vol. \$7.50. Published by Wm. Wood & Co., 27 Great James Street, New York.

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WILLIAM MACK, M. D.,
Brazil, Ind.

WE wish it understood that all those to whom bills were sent last month for money due on subscription, are expected to *pay*. We want the money, and also want to know who desires to continue their subscription. We wish to furnish the Journal to all who pay, but cannot issue it for those who do not value it enough to do so. If any bill sent is not correct please state the same.

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Original Communications.

PUERPERAL FEVER.

BY T. F. LEECH, M. D., WEST LEBANON, IND.

Read before the Fountain and Warren County Society, April, 1874.

GENTLEMEN: Before proceeding to speak of Puerperal Fever, it will be well to first consider some of the physiological changes in the maternal organism during pregnancy, only speaking of those, however, that have a direct bearing upon the subject in question.

The Uterus is the seat of the greatest and most important changes which take place in the female organism during pregnancy, and while the virgin uterus weighs about one ounce, the organ towards the end of pregnancy, has a weight of two pounds. The voluminous increase of the uterus is chiefly due to the hypertrophy and hyperplasia of its muscular fibres. They increase during gestation, to eleven times their previous length, and to double or even five times their original breadth.

There is also a new formation of contractile fibre-cells, and the connective tissue between the muscular fibres increase and become looser. The blood vessels grow

abundantly, especially at the placental insertion, and multiply by new formation. The nerves enlarge to such an extent that the cervical ganglion for example, which in the virgin condition, is three-quarters of an inch long, and one-half an inch broad, acquires a length of two inches and a breadth of one and a half inches. The lymphatics also participate equally in the enlargement.

The peritoneal covering of the uterus is also stretched on account of the enlargement of the enveloped organ, and the broad ligaments unfold more and more until toward the end of pregnancy, they form the outer covering of the uterus, drawing the ovaries and fallopian tubes close to that organ. The mucous membrane of the gravid uterus, also undergoes important changes, in the educt of its proliferated decidua vera.

The round ligaments are hypertrophied, and become very much elongated. The abdominal and thoracic viscera are all more or less displaced, and the vagina enlarges, though in a much less degree than the uterus. Its muscular fibres enlarge and multiply; the mucous membrane is hypertrophied so that it becomes longer and more roomy, and although the upper portion is drawn up, the anterior wall is frequently found projecting at the vulva, forming a bluish red swelling.

A young couple applied to Dr. Campbell and I, on account of what they supposed to be a very grave trouble occurring between the seventh and eighth month of pregnancy, as an old women had told them that she thought "everything had all gone wrong," and the physician they applied to first said he couldn't quite make out what it was but he thought it was a bad case, and would like to have consultation; he quieted their fears and gained considerable reputation by telling them it would disappear after delivery. I had the pleasure of a long ride on the prairie one night to find that she had gotten through all right and there was nothing for me to do but to get on my horse and come home again.

The vulva also participates in the hypertrophy of the pelvic organs, and the labia become swollen, the thick blue veins are transparent through the mucous membrane, whilst the whole vulva is widely open. The joints of the pelvis become looser, more moistened and somewhat more moveable; yet this increased mobility is insufficient to allow any great widening of the pelvis.

By the deposition of fat in the sub-cutaneous tissue, the whole pelvic region obtains a rounder and fuller appearance; the pressure of the uterus frequently causes irritability of the bladder, constipation of the bowels, varicose veins of the lower half of the body, œdema of the legs and neuralgic pains in them. In fact the functional disturbances of this physiological process are so great that in other individuals they would be considered pathological, but they disappear on delivery. The blood is more watery with an increased quantity of fibrin, whilst the albumen is diminished, and it has a greater proportion of white blood corpuscles, the circulation is disturbed, causing palpitation and vertigo, the urine is increased in quantity and is more watery, the other constituents are not altered, albumen is seldom found in it.

In the digestive organs, functional disturbances are almost constantly met with—salivation is not a rare occurrence. The nervous system is also the seat of various disturbances, such as headache, toothache, amblyopia, difficulty of hearing, altered taste and mental disturbance. The weight of the body is greatly increased, not exclusively on account of the growth of the uterus and its contents, but by an increase of the whole body.

Bearing the above facts in mind, we shall be better prepared to consider those diseases of child-bed which have a casual connection with the processes occurring during or after parturition, and to speak of the affections of each organ separately would appear the best

course to follow, but they make a group of diseases distinguished by its tendency to an acutely fatal course, and they are all dependent upon one common cause. They are due to infection by septic material, and are commonly comprehended under the one name of

PUERPERAL FEVER.

Mention is made by the most ancient writers of Lying-in women who have been attacked by septic infection and died. Hippocrates, Galen and Celsus, gives the history of cases which in all probability, were due to it, and so do other authors down to the seventeenth century, but epidemics of puerperal fever proper are only mentioned since special lying-in hospitals or special departments, in general hospitals have been established. Pen tells us that in lying-in departments of Hotel Dieu, of Paris, in the year 1664, that the mortality amongst lying-in women was immense, and we also have mention of a fearful epidemic in the same institution in 1678. In many other European towns where special Obstetric departments had been established, the epidemic occurrence of puerperal fever was soon observed. In Lyons in 1750; in the British Hospital, London, 1760, and 1761; Copenhagen, in 1765, and 1766; Dublin in 1767, and in Vienna the first appearance of an epidemic was in 1770; in Edinburg in 1772, and in Berlin 1777. The greatest ravages were caused in the lying-in department of the Hotel Dieu, where it raged year after year. In 1829, of 2788 lying-in women, 252 died; in 1831 of 2907, 254 died. In February of that year seven women were delivered in one day, all of whom died. In Vienna, in March, April and May, 1823, out of 698 lying-in women, 133 died, (19 per cent); in 1842, in the Vienna hospital, out of 3287, 518 died; in 1846, of 4010, 459 died; in 1854, of 4393, 400 died. Thus, by these data, which could be augmented by hundreds, it can be seen with what severity puerperal fever has sometimes raged in lying-in hospitals.

Many theories have been brought forward to explain the occurrence of puerperal fever, but of late, two have especially contended for the supremacy. According to one of those, puerperal fever is due to a miasma formed by the crowding together of puerperal women, and according to the other, it is due to the absorption of septic material.

The purely miasmatic theory that a specific material formed under atmospheric, cosmic and telluric influences, and acting especially upon puerperal women causing puerperal fever is almost abandoned, but the opinion is still prevalent that puerperal fever is like typhus of miasmatic origin, and that under suitable conditions the diseased organism may reproduce the virus and propagate it to other predisposed individuals without the original miasma being still active; so that in the course of the miasmatic disease, a contagion is generated and propagated to others as the determining cause of the disease.

The view that seems to have the most adherents and is rapidly obtaining converts, is that puerperal fever is due to the absorption of septic material from the surface of the wound, and by septic we are to understand—Putrid—that which produces putrefaction. A substance which corrodes and disorganizes the soft parts without causing much pain.

The following extract taken from the *Indiana Journal* will give you a very vivid idea of what is meant by septic material or decomposed organic matter, causing disease and death:

“Late French experiments made with a view to determine how minute a dose of poison will produce decided medical effects, present some interesting results and are of real medical importance. It appears that the blood of an ox which had been dead ten days was used in the test; having inoculated a rabbit with this blood-poison, the Doctor took the blood of that rabbit and so on to the twenty-fifth generation that had died. The result proved that one trillianth part of a drop of decayed blood injected subcutaneously, sufficed to poison a rabbit.

"From this, though it does not appear whether there was any repetition of the test to confirm it or not, Dissecting Surgeons can perceive that though the dissecting knife may be clean to the eye, it may yet hold an invisible atom of death poison sufficient to infect the circulation if the operator should by accident prick his finger."

Denman was the first who contended that physicians and midwives who attended to cases of puerperal fever propagated that disease to other puerperal women, after which proofs accumulated in England, and many cases were made known where puerperal women had been infected by accoucheurs, who attend not only puerperal fever cases, but also cases of phlegmonous erysipelas and of ichorous wounds.

A sad experience of this kind and one that I shall never forget, occurred in my own practice where I amputated the end of an elongated cervix in a case of procidentia Uteri. I performed the operation with instruments some of which I had recently used in dressing an abscess in a case of phlegmonous erysipelas of the scalp. I had washed my instruments in warm water dried them with a clean cloth, but the death-poison was there, and my patient, a most estimable lady, was taken upon the second day after the operation with a remittent fever, which came on with a distinct rigor, was persistent and soon became continuous, and general peritonitis was gradually set up by a parametritis which occurred in consequence of ichorrhæmic intoxication.

The pain gradually increased in intensity, and spread over the abdomen, the tympanites becoming very great so that at last the pressure of the bed-clothes could no longer be borne, and the patient continually cried out in agony. The temperature arose to 108 F., on the morning of the third day of the disease and remained at that, until a few hours before she died when it came down to 104. The pulse beat 160 to the minute, and even more during the last forty-eight hours of her life; she died on the fourth day after the development of the

disease with all the symptoms of septicæmia in its most general and acute form, and although it occurred in a non-puerperal women, it was undoubtedly caused by infection from septic material and did not differ in any way from septicæmia occurring in the puerperal state.

Semmelwies has the merit of having worked out the subject of septic infection in puerperal women with special reference to lying-in hospitals, and he deserves to be mentioned amongst the first of the benefactors of men.

Under the term puerperal fever, we place all those diseases of puerperal women which are caused by the absorption of septic matter; that is organic substances in the process of decomposition. Septic material as a rule enters the blood as such, although a long sojourn in an atmosphere loaded with gasses the product of organic decomposition can give rise to chronic illness. But fresh wounds exist in every puerperal woman. In every one some of the maternal bloodvessels are opened up by the detachment of the placenta, and in almost all there are slight lacerations of the crevix and vulva.

The sources of the infection are two-fold, auto-infection where it belongs to the infected organism itself, or external infection where it is introduced from without. Auto-infection is possible where there is mortification of the maternal parts caused by too great pressure; where there has been a piece of the placenta or the membrane retained, a case of which has recently come under my observation. A lady who had a delicacy about having a physician attend her in her labor, found it difficult to have the secundines come away, so she arose from the bed and sat upon the vessel, but failing to accomplish the object she pulled the placenta away y main force, leaving the amnion and chorion within the grasp of the cervix. She rested contentedly for five days, when a neighbor lady discovered something hang-

ing from the vulva in a state of putrefaction, and emitting a very disagreeable odor. A physician was called in who removed the retained membrane taking good care to explore the os well, stretching it violently so as to be certain that nothing should be left that some other physician might discover and cause reflections to be thrown on him, being the very thing that he should not have done, for on the second day thereafter septic disease was developed, and Dr. Campbell attended the lady through a mild case of puerperal fever which lasted two weeks, terminating in a recovery.

To produce infection, a recent solution of continuity is required, which, as a rule, does not occur a few days after delivery when the ichorous decomposition begins. The wound at the placental insertion has then closed, and the lacerations of the mucous membrane has healed by the first intention or have become granulating ulcers and the granulations prevent absorption. Under unusual circumstances a fresh wound may occur or a fresh excoriation may be produced by the instrument or finger of the accoucheur, but when there is decomposed material at the birth of the child, auto-infection is most apt to occur, as when the dead fœtus has been exposed for a long time to the air, or when gangrene sets in on account of too great pressure before delivery is terminated, or where the new growth of carcinoma readily undergoes putrification. If the recent wound has ceased to be capable of absorption, the infection will not take place as the granulating ulcer or line of demarcation does not absorb. Billroth has shown by experiment that granulating sores do not absorb as long as the infecting agent does not destroy the granulations.

External infection takes place when the septic materials are brought to the recent wounds of the genital organs by means of the linen or by instruments, and too frequently by the examining finger. Septic substances floating in the air may come in contact with the recent wounds, but these substances never exist as gaseous

miasm, but as organic compounds suspended in the air. The infecting matter may be derived from any decomposing organic matter, but puerperal fever is generally caused by poisoning septic matter from the genital organs, and the effect of this poison is essentially the same in surgical wards where they are designated as erysipelas, pyæmia, ichorrhæmia and septicæmia, the difference being in the places where the septic material enters the body. The same effect may be observed after surgical operations in the non-*puerperal* as in the *puerperal* state, as shown by two very interesting cases reported by Buhl, where the post-mortem examinations of two girls *episiorrhaphy* was performed, and that there is nothing specific in *puerperal* fever, is shown by the fact that *puerperal* women can be infected, and *puerperal* fever produced in them by patient with phlegmonous erysipelas or with suppurating and ichorous wounds.

Phlegmonous erysipelas and *puerperal* fever are very frequently observed to be prevalent at the same time; the former affecting pregnant women and nurses who have excoriations that come in contact with the septic material of *puerperal* fever cases. The septic infection is also transferred to the newly born child, causing erysipelas of the surface of the body where there are slight abrasions, and even causing peritonitis and ichorrhæmic metastasis into other organs. We may conclude from these facts that *puerperal* fever is not contagious, for by a contagious disease is meant one in which a specific poison is produced which transferred to another, always produces the same specific disease, such as measles, scarlatina, small-pox, syphilis, etc. Although *puerperal* fever is not contagious it must be admitted that it is manually transferable.

PATHOLOGICAL ANATOMY OF PUERPERAL FEVER.

The infection may take place at various places, but the lacerations of the cervix which are easily reached by the examining finger, is much the most frequent place.

The rents in the mucous membrane of the vagina are a frequent seat in the primiperæ, the lacerations and edges of wound begin to ulcerate, and forms what is known as the puerperal ulcer, and if the fluids do not become putrid until afterwards, they are not absorbed; the placental insertion is also protected in the same way.

The puerperal inflammation of the vagina so closely resembles the erysipelas of the true skin that Virchow called it "*Erysipelas Malignum Puerperal internum.*" Great changes take place in the mucous lining of the uterus, the body of it is œdematous and the lymphatics situated within its parenchyma are dilated and filled with pus. As a rule the inflammation does not extend to the Fallopian tubes and through their mucous membranes to the peritonæum which two membranes are joined directly together at the fimbriated extremity of the tubes; occasionally, however, a purulent salpingitis occurs, and this may lead to peritonitis by the rupture of the tubes, or by propagation of the inflammation. By the mortification of the uterine walls they too may rupture, and the ichorous fluids discharged into the abdominal cavity. By continuity of structure the inflammation extends to the cellular tissue surrounding the vagina and uterus, extending from that to the cellular tissue of the entire pelvis, and even up the abdominal walls to the diaphragm, or as is rarely the case it may accompany the larger blood-vessels and nerves to the lower extremities, causing the swelling of the thigh known as "*phlegmasia alba dolens.*"

That portion of the peritonæum forming the broad ligaments is exceeding prone to inflammation and œdema, and in the intense forms of peritonitis the ovaries also, which are in direct continuity with the connective tissue, participates in the inflammation. The whole ovarian stroma is sometimes seen to be disintegrated and occasionally abscess of the form which perforate early causes a passage externally or into some adhering neigh-

boring organ. General peritonitis arises most frequently in the course of parametritis or pelvic peritonitis in the way described above, and is rarely a consequence of ichorrhæmia or of propagation through the uterine parenchyma or the fallopian tubes. The intestines are distended on account of meteorism, and the diaphragm is pushed upwards. Cases where there is no fibrinous exudation and where the abdominal cavity is found to contain a thin brownish discolored fluid, of a very putrid odor, are supposed to always terminate in death, but if the exudation is serous, purely fibrinous or purulent recovery may take place.

The peritonitis may extend to the pleura, but more frequently, however, the pleurisy as well as the peritonitis itself is the consequence of ichorrhæmia, and there are many changes in the organism that is not the result of inflammation spreading by continuity of tissue. Experience has shown that in cases of intense septic infection death may take place in a very short time, and that post-mortem examinations show no changes than that the blood is dark, and non-coagulable and ecchymoses in various tissues. The process consisting of a uniformly acute degeneration of all the organs is called septicæmia, and the process where the disease is more chronic and limited to individual organs is called ichorrhæmia, but a specific difference between the two does not exist.

We will only be able to mention within the limits of this article some of the most important changes met with in some organs. Abscess have been found in the spleen. Inflammation of the cerebral membranes are rare—Purulent inflammation of the larger joints are more frequent—Endocarditis has been seen—Embolism and pneumonia affect the lungs—The liver is rarely unaltered.—The kidneys suffer from embolic centres and diffuse inflammation. Buhl saw a case of parenchymatous inflammation of the pancreas. There may be suppurative and putrid inflammations of the parotid glands,

the mammæ and thyroid. Inflammation of the eye is met with in ichorrhæmia and septicæmia with destruction of the ball—The lymphatic glands suppurate—The muscles and connective tissue suffer—Catarrhal inflammation of the intestinal mucous membrane with ulcerative inflammation of the true skin and in fact the entire organism may be affected by the ravages of puerperal fever, if the disease is malignant and the poor patient lives long enough.

SYMPTOMS AND COURSE OF PUERPERAL FEVER.

The outbreak of the disease depends upon the period at which the infection has taken place. This, as a rule, occurs during the expulsion of the fœtus and afterbirths, sometimes, however, at the commencement of labor or even during pregnancy; any time when laceration occur, which may be early. When the internal os is patulous the examining finger may open some of the absorbent vessels by separating the desidua. Gestation is interrupted if infection takes place during pregnancy. A few days after delivery infection is rare on account of the lacerations having cicatrized or begun to form granulations as before mentioned, but it is possible, as the granulation are easily destroyed, and the recent cicatrix irritated as shown by the above mentioned case where the membranes were retained.

Usually the woman is infected during the last stage of labor, and the first part of the puerperal state may pass quite normally. The temperature during and after birth, depends exclusively upon the process of labor, even in infected women; if labor has not given rise to any considerable disturbance, the temperature is normal, that is, it rises within the first twelve hours, and in the second twelve hours it again falls very commonly to below 98° F. The pulse may also be slow, not infrequently from 60 to 70 in the minute, but sometimes it is frequent from the commencement. The first sign of the outbreak of the disease appears about 30 or 40 hours af-

ter infection, being observed usually on the second or third day, or when the infection takes place earlier it may appear during labor, or on the first day. The disease is not always, but often ushered in by a very pronounced rigor, and sometimes the fever comes on gradually with slight shivering or increased sensibility to cold. Chilliness or rigor is by no means a symptom of great importance, they being entirely absent in some of the most fatal forms of puerperal fever. Puerperal women are easy to feel chilly, and a very severe rigor unaccompanied by other symptoms need not be considered a precursor of grave pathological changes. Since almost all the organs may be attacked in puerperal fever, the symptoms are necessarily very variable. Puerperal ulcers attended with pain during micturition is observed. The ulcer is usually larger on one side than the other, and consequently more swelling of the corresponding labium occurs, causing discomfort, and being very sensitive to the touch. They heal slowly, and often at a late period cause intense pain upon walking, and after the fibrile disease has ceased for weeks sometimes, hemorrhage takes place from them. The induration of the labia often lasting for a long time.

The symptoms which accompany the acute inflammatory œdema of the pelvic connective tissue are of very great importance. The pain showing that the serous covering is implicated in the inflammation, and in general peritonitis the symptoms are more aggravated than in partial peritonitis and pelvic cellulitis. In the latter the pain is considerable and the accompanying fever is variable. The fever begins without or with a rigor, and reaches its height at once upon the first day or at least upon the second, and is never continuous, but always showing remissions and sometimes distinct intermissions. Generally the temperature is high and may reach the highest degree with which life is at all compatible, rarely, however, it may remain low, corresponding generally to the extent of the exudation. The pulse is usually

frequent, corresponding to the temperature, but may be low with high temperature; there is often great thirst and headache, tenderness on one or both sides of the uterus, and occasionally the pain is considerable on account of the peritonæum lying close above the connective tissue, and it is often spontaneous. Swellings are often observed between the broad ligaments, and can be easily outlined by combined internal and external examination and is of great importance as the infiltration of that region determines the affection of the connective tissue. The exudation can be most distinctly felt when it has originally been circumscribed. These tumours may extend down and protrude into the vagina, being nearly as large as a child's head, but commonly they are no larger than a hen's egg. Their shape is often irregular, and in rare instances they are situated anterior or posterior to the uterus, and may even be enveloping that organ so as to make it impossible to distinguish it separately. External palpation is important in diagnosing these exudations. After these tumours have remained for some time, they become inspissated and in a few weeks are re-absorbed so as not to leave a trace of their previous existence. The re-absorption is accompanied by distinct symptoms of hectic fever particularly when the tumour is large. The uterus is drawn to one side and remains fixed by adhesions of the tumour, but they disappear at a later period and the uterus regains its normal position. The tumour may become very hard and not be absorbed; it occasionally softens and suppurates, the pus perforating into the vagina, bladder, uterus, or may be the abdominal cavity, from whence it sometimes escapes through the thyroid foramen beneath the gluteal muscles and opens externally. In rare cases the virulent inflammation extends to the subcutaneous and connective tissue of the thigh, causing the phlegmonous inflammation of the lower extremity, which in puerperal women is known as phlegmasia alba dolens. Thrombosis of the veins and lym-

phatics occur—phlegmasia of the lower extremity may occur as late as the second week after delivery, the attendant swelling is not soft and doughy as in simple œdema, but hard as wood. Death from phlegmasia is rare unless the soft parts become gangrenous.

In some cases the symptoms of pelvic peritonitis are more marked, the infection revealing itself by severe pains in the abdomen, which comes on suddenly and may be so great as to cause very patient women to cry out loudly, the whole lower portion of the abdomen is sensitive to pressure, and the temperature raises to 104° or 106° F. Tympanitis being also present, but by local bleeding (if the patient is plethoric,) the application of cold and the use of active but gentle laxitives, recovery may be rapidly effected.

General peritonitis is developed gradually and is consequent upon the ichorrhæmic intoxication, just as pleurisy and arthritis is—In these cases the disease begins on the second day after delivery with a rigor or slight shivering, but the rigors may be absent; when present, however, they are soon followed by tenderness at each side of the uterus and remittent fever, the pain increasing in intensity and spreading over the whole abdomen. Tympanitis becomes very great, the bed-clothes cannot be tolerated, and the patient cries out with pain. The tympanitic intestines push up the diaphragm which with the connecting pleurisy produces great dyspnea. Palpation is unbearable—there is a persistent nausea or vomiting and frequently profuse diarrhæa. The fever is usually continuous or slightly remittent, the temperature may not exceed 104° F., whilst the pulse at first not very full and frequent, quickly rises to 120, 140, 160, or even more beats in a minute as the inflammation spreads. Towards the fatal end the temperature frequently falls and the pulse becomes more frequent, which is a bad symptom. On account of the tympanitis, respiration is almost always frequent, forcible and laborious. The face has an uncommonly anxious expression, the

forehead is covered with clammy perspiration, the extremities are as cold as ice, and the patient becomes collapsed often within a few hours.

However, painless cases of general peritonitis may occur as shown by post-mortem examinations where inflammation was found spread over the whole peritoncum, and yet the patients without being drowsy only occasionally complained of pain or not at all. Meteorism is seldom absent, but can not be counted upon as a diagnostic sign as puerperal women under normal conditions are subject to it. Vomiting is not always absent. The fever and especially the pulse show great variations in cases of general peritonitis. The temperature which sometimes reaches 108° F., is in other instances only 102° F. and the fever may be entirely absent where there is considerable exudation. The pulse is small and more frequent than would be expected from the degree of temperature. The majority of cases terminate in death, which may occur in thirty-six hours or during the first week. Consciousness may remain perfectly intact up to the last moment, and even when lying pulseless she may congratulate herself upon her supposed recovery, but in other cases she may suffer from dyspnæa and is in a fearful agony towards the end. More rarely the symptoms of acute peritonitis subside and the patient tends to recovery and many escape a fatal termination. In cases of recovery the patient has adhesions causing colicky pains. Changes in the position of the uterus as well as sterility due to the ovaries being encapsuled or to flexions of the uterus or to occlusion of the fallopian tubes. General peritonitis is not often met with without ichorrhæmic complications of other organs. Cough and pain in the chest show the affection of the lungs and pleura. There is rarely bloody expectoration—implication of the kidneys is shown by the presence of albumen, pus, and blood in the urine. There may be pain and swelling in the joints, inflammation of the con-

nective tissue, abscess of the muscles, and suppuration of the lymphatic glands. The most marked symptoms of septicæmia are fetid diarrhæa, increasing frequency of the pulse and respiration, a low temperature and a typhoid condition. According to the localization of the disease in individual organs, the symptoms also will greatly vary.

DIAGNOSIS OF PUERPERAL FEVER.

It is of great importance both as regard the prognosis as well as prevention that we should be able to decide whether a disease of a puerperal woman be puerperal fever, *i e*, whether it be due to infection or not. In general peritonitis if the processes during labor does not sufficiently explain the occurrence we must consider it of septic origin. The cæsarian section or rupture of the uterus would account for a general peritonitis without the aid of septic infection. The discharge of fetid decomposed lochia is not and cannot be considered a proof that infection has taken place; we have observed large quantities of foul smelling lochia discharged without any trace of disease. When shreds of the decidua remain on the surface of the uterus, decomposition always takes place. Auto-infection does not necessarily take place from this septic material, as all the absorbing surfaces are protected by the time this occurs. Yet healthy puerperal women whose lochial discharges are decomposed require careful attention on account of the epidemic to which they may give rise.

Acute articular rheumatism may be confounded with puerperal inflammations of the joints, and it is very difficult to decide upon the nature of pneumonia or pleurisy arising in the course of the puerperal state. The prevalence of an epidemic, or if parametritis exist at the time, will greatly aid in the diagnosis. Fortunately in the absence of epidemics, considerable injuries, retention of membranes and placenta are frequently not attended with unfavorable results; and there are cases of

acute peritonitis that can't be considered as belonging to puerperal fever. Self-infection is much more rare than manual infection, as shown by comparing isolated cases of puerperal women in private practice with those in hospitals. It is easy to be seen why the accoucheur would prefer self-infection, or to deny the manual transferability of the disease. The brother practitioner who denies the danger of carrying the septic poison upon his person from puerperal fever cases, phlegmonous erysipelas and ichorous wounds to recent puerperal women, reminds me of the time when I was carrying fire through my father's meadow during the great drouth of 1857. I thought if I dropt a coal I could trample upon it and put it out, but when I had nearly burnt up the whole farm, I come to the conclusion that it was dangerous to carry fire through the dry grass. It is necessary to know whether after infection has taken place the process is still localized or whether it has already extended over the whole organism. For the diagnosis of different local diseases every thing depends upon an accurate examination performed according to the rules of gynæcology, medicine and surgery. A slight degree of parametritis cannot be recognized without an accurate combined internal and external examination, and here of course the young practitioner sometimes remain in the dark, and it is often difficult for the *old* and *wise* physician to get the consent of the patient to make the necessary examinations. The diagnosis of meningitis must be made with caution, whilst cerebral symptoms are very frequent in puerperal women, inflammation of the meninges is so rare that there must be paralysis before a diagnosis can be made. Endocarditis can rarely be diagnosed with absolute certainty during life, functional disturbances of the heart are very frequent. Icterus is frequently met with even where post-mortem examinations show the liver to be in a normal state, or in the first stage of a parenchymatous inflammation. To examine

the urine of puerperal women, it must be drawn off with a catheter, and even then we must remember that blood and pus may be derived from the bladder as well as the kidneys.

THE PROGNOSIS OF PUERPERAL FEVER.

In all the forms of puerperal disease due to infection, a prognosis is to be made with great caution. The mild-est parametritis may pass into a grave ichorrhæmic affection. Affections of the peritoneum always render the prognosis doubtful, although the extension of the inflammation to the serous membrane of the pelvis may in many cases be arrested. In inflammation of the whole peritoneum the prognosis is very unfavorable, as it rarely terminates in recovery, many patients dying of suppurative exhaustion, perforation and fresh exacerbations of the peritonitis. When symptoms of ichorrhæmia and septicæmia appear, the prognosis is very grave. In affections of the joints recovery is only partial at times with the usual terminations of a purulent articular inflammation, and most of the other local affections offer considerable difficulties in prognosis which should be well considered and always guarded before expressed.

THE TREATMENT OF PUERPERAL FEVER.

In the treatment of puerperal fever, prophylactic measures ought to occupy the first place, and as infection is brought about by septic material, parturient and puerperal women must be carefully watched to prevent the reabsorption of decomposed organic matter. We will first consider the precautions to be taken to guard against self-infection, which we are persuaded is of much more rare occurrence than infection from external sources. The retained pieces of the secundines only acquire infective properties as a rule after the fresh wounds are no longer capable of absorbing, but self-infection is not only possible but highly probable when the woman is delivered of a dead child in a state of decomposition, or where the soft parts have become gangrenous from pro-

tracted pressure bruising them and the gangrenous secretion passes over the recent lacerations of the mucous membrane. It is the duty of the accoucheur to shorten the labor when prolonged pressure is threatening the death of the soft parts which are to supply the septic material. I repeat, that it is very important to terminate labor in every case before putrid discharges appear, and in case of a decomposed fœtus, it should be removed as speedily as possible, and the vagina and cervix thoroughly cleansed by means of very careful injections of dilute carbolic acid in order to disinfect the small lacerations of the vaginal mucous membranes and of the cervix. The accoucheur should be careful not to produce a condition favorable to auto-infection by destroying with the examining finger the mucous membrane of the uterus or vagina, causing a solution of continuity through which the septic material of the decomposed lochia is then easily absorbed. Our chief aim, therefore, should be to prevent decomposed organic matter being brought to the puerperal woman. Such septic substances are brought to the genitals of the recently delivered woman principally in three different ways. First by the sheets, sponges, &c.; Secondly, by the hand or instruments of the accoucheur; and thirdly by the hand or instruments of the midwife. The difficulty with regard to the first point is easily avoided by having everything brought in contact with puerperal women perfectly clean, and this is most necessary during the first days after labor.

Every practitioner present knows how often this precaution is neglected, the healthy patient often lying on sheets soiled with the discharge and even upon cloths and dirty garments which are considered especially suitable because they are already soiled by having been worn by some filthy person suffering from skin disease or even an old chronic ulcer. I often wish for a good mother or a kind sister who will go nobly to work and

not be afraid to do every thing necessary for the comfort and safety of the patient, and I can bear with a good grace the officiousness of a heroic nurse who prides herself on knowing a "good deal," when I think of the advantage she will be to my poor patient when she is left at the mercy of her nurse, many of whom will be too ignorant and lazy to do any thing for her. To guard against the second danger, the hands of the accoucheur and his instruments must be absolutely clean, lest the hand which ought only to help and not harm should bring disease or death. Let the accoucheur think of everything that he has handled during the last few days, and he must not consider his hands free from poison. If he has handled any portion of a dead body, if he has seen a patient suffering from pneumonic erysipelas or pyæmia, if he has dressed suppurating or diphtheritic wounds, if he has come in contact with decomposing new growths, if he has extracted a decomposed ovum in abortion, if he has examined women with badly smelling lochia or suffering from puerperal fever. It is not necessary to say that every accoucheur before examining a woman should thoroughly wash his hands, but when he has come in contact with septic material as mentioned above, it will not be sufficient just to wash his hands with soap and water, he should use a nailbrush or rough cloth so as to remove the superficial layers of the epidermis, and disinfectants should be added, of which chlorinated water, permanganate of potash, concentrated acids and especially carbolic acid is the best. The instruments can best be cleaned by means of boiling water which dissolves the poison, but does not destroy it. The hot water only renders it more easily washed off, and the instruments should then be well wiped with a clean cloth. He should change his coat and linen after examining a puerperal woman in the usual way, for he can never be sure that infecting matter does not adhere to the sleeve which has been under the bed-clothes.

If the accoucheur takes all these precautions he will not be forced to give up his obstetric practice for a time if puerperal fever does happen to occur. The nurse cannot be made to appreciate the danger of the manual transfer of septic matter unacquainted as she is of its nature, consequently she needs the closest supervision. She must not be admitted if she has recently attended a diseased puerperal woman, and as the public is becoming acquainted with the danger which menaces them, through incautious accoucheurs and midwives, it is decidedly to our interest not to treat this matter with indifference. If the disease has once appeared, there is little prospect of staying its course, although the treatment is not as powerless as some would have us believe. Still it behooves us to prevent an outbreak of puerperal fever if possible. There is no known remedy with which we are able to neutralize the action of the septic matter in the tissues and blood. The sulphites of sodæ and potash, (1 3, a day,) as well as sulphurous acid (1 3 to 1 oz. sweetened water per diem,) are recommended to be used to the extent of producing profuse diarrhæa. Huter and Thomas recommend carbonate of soda and permanganate of potash; and Tyler Smith has seen a desperate case recover after injecting liquor ammonia and water (1 part to 3,) into the veins.

Purgatives as a class in this country are bitterly condemned by the advanced ranks of the Medical Profession, and of course we should not like to be guilty of following any other. It may do for a soldier to boast of being "a high private in the rear rank," but it will never do for a member of the "F. & W. Medical Society." Observation has taught us that dogs poisoned by septic matter, recover after profuse and fetid diarrhæa, but we must remember that in the dog we can lay open the peritoneum freely without any risk of exciting general peritonitis which by odds is the most to be dreaded

in puerperal fever. So that should any one feel disposed to try to remove the absorbed septic material from the blood through the intestinal canal, I should advise him to only risk it in mild cases and early in the disease, and castor oil and calomel should only be used even then, and not persisted in.

The habit of repeating the purgative dose and at the same time disturbing your patient by administering repeated enemata until a motion is obtained or death relieves the sufferer of her torments is simply criminal. Transfusion of healthy blood may be resorted to as a last and desperate measure. The long continuation of high temperature brings the system into the greatest danger on account of the consumption of tissue, but luckily we possess a very valuable remedy against this danger; the methodical application of cold water. This is indicated when the temperature continues at 106° to 108° F., and there are cerebral symptoms with great prostration. The best mode of applying it is by the wet sheets, which should be spread upon one side of the bed and the patient divested of all her clothing except a chemise (which should be well tucked up under her arms,) should be lifted gently into the wet sheet by means of the sheet she is lying upon, which latter should be tucked close under her sides and the wet one brought up over the nude body. This should be repeated every few minutes until the temperature is brought below 100° F., and shows signs of remaining there. The patient will experience great relief and even express her gratitude. The frequency of her respiration and pulse will have very much diminished, and the skin may even become relaxed, and patients with benumbed sensorium become conscious again for the first time in many days, and in others the intense headache diminishes, the tormenting thirst decreases and the excruciating anxiety and depression gives way to sensations of general well-feeling. Other remedies recommended

for the reduction of temperature are much less certain. Digitalis and veratrum are indicated, but they should be given sparingly and the condition of the patient closely watched. Of course they must not be used in some cases at all, others will be found to bear them poorly, while in still others they may be just the thing, answering the purpose admirably. My plan of treatment *usually is* (when called to see the patient after the disease is well developed and the woman has been subjected to a multiplicity of domestic remedies, the disease having come on suddenly and rapidly,) that layed down by Prof. Barker, of New York, and so popular in this country. I remember that pain is not always present in puerperal fever, that the uterus becomes baggy, has the diffusal feel of a tumor, and when the tenderness is due to intestinal flatus and irritation, but deep pressure does not cause pain, while in peritonitis it does; that the bowels should as a rule not be moved by purgatives, venesection should not be thought of, and that there is great tolerance of opiates. If there is no pain but tympanites, I put the patient at once under the use of opium, using any of the preparations that is best suited to the case and administer by the stomach, bowel or by hypodermic injections, which ever I think will be most certainly retained and will bring the patient under its influence quickest. I carry it just a little short of narcotism and hold my patient at this until the tympanitis subsides. The remedy most efficient in controlling the tympanitis is hot turpentine stupes, the patient can only bear it a few minutes, they should then be taken off and reapplied. Veratrum veride to control the vascular excitement should be used in vigorous subjects, commencing with five drops every two hours and continuing until the pulse is brought down to seventy, when only the amount necessary to hold it there should be used. I never blister. Give nourishment at intervals, and to each ounce of concentrated liquid food add from two to three

drops of nitric acid. If by percussion I detect effusion I commence at once with iodine and apply it every night until the effusion subsides. If the surface becomes cold I give brandy and quinine in doses suited to the case, I continue the opium and veratrum viride as long as the uterus has an abnormal feel, whether there is pain or not. The local disease must be carefully attended to, the lacerations must be suitably dressed with carbolic acid, but never touch the wounds with solid nitrate of silver. In putrid endometritis injections are to be repeatedly made for the purpose of cleansing and disinfecting, using every precaution in order to prevent the transfer of the disease. The exudation which is often very great in parametritis demands special attention, but by maintaining a quiet posture in bed and the use of iodide of potash (ten grs. dissolved in sixty of water, twenty drops given twice daily,) the warm hip-bath, &c., very extensive and hard tumors rapidly diminish in size and disappear almost entirely while the general condition and the nutrition improve. Parametritis *may be* controled and the extension of the inflammation to the peritoneum prevented or the complication with ichorrhæmia averted by the earliest possible use of laxatives; on the very first appearance of pain, give a few tablespoonfulls of castor oil at short intervals, and if the thin stools are not obtained, give a full dose of salines. If the intense pain indicates the appearance of partial peritonitis the treatment must be energetic in order to prevent the spread of the inflammation to the whole of the peritoneum. Under such circumstances high authority recommends topical blood-letting over the region of the pain, and followed by ice bags which will probably mitigate the pain, and in case of its return they should be reapplied. If *general peritonitis* has occurred the condition is decidedly grave in the highest degree, but not entirely hopeless. The application of ice to the abdomen ought to be continued and the vomiting (if present) stopped by pieces of ice or champagne. The

more intense pains require subcutaneous injections of sulphate of morphia, and turpentine enemata render the greatest service against the distressing meteorism. The propriety of puncturing the abdominal cavity to remove the fluid exudations has not been fully established. Spencer Wells removed the fluid which accumulated in Douglas's pouch after ovariectomy by means of the trocar, and made use subsequently of drainage tubes, and Thompson and Storer have even washed out the abdominal cavity with greatly diluted carbolic acid. In all cases in which a retro-uterine tumor is attended by grave symptoms of peritonitis or by those of blood-poisoning, Douglas's pouch may be punctured through the vaginal walls and the exudation thus removed.

When collapse comes on the fatal end may sometimes be prevented by the copious use of strong wine. Cases are reported where the patient was already moribund and comatose which were not only kept alive, but finally recovered. Good food and an abundant supply of wine should be given even when the fever is considerable.

Of the treatment of metastatic inflammation I cannot speak in detail, but it must be varied according to the principles of medicine and surgery.

In conclusion I must say gentlemen, that there are many things pertaining to this disease that I should like to have spoken of, but it was impossible to include them within the limits of an article of this kind, but I hope that this important subject may be prosecuted farther at an early day by some more competent member of the Society.

Proceedings of Societies.

MICHIGAN STATE BOARD OF HEALTH.

The State Board of Health held its quarterly meeting in Detroit on Tuesday. The members present were Dr. H. O. Hitchcock, President, Dr. R. C. Kedzie, Rev. Charles H. Brigham, Rev. J. S. Goodman, Dr. H. F. Lyster, and Dr. Baker, Secretary.

Dr. Kedzie, chairman of the committee on Poisons, reported that he had prepared a set of books of specimens of poisonous wall paper, with a printed introduction, to be distributed to the public libraries and other public places. An eight-page pamphlet has been reprinted from the introduction to these books, which will be distributed where the samples cannot be supplied. An important point concerning this poisonous paper is that arsenic cannot be discovered in the paper by the color, but only by some such test as Dr. Kedzie recommends.

Dr. Kedzie also reported relative to the resuscitation of the drowned and suffocated. He presented a form for an illustrated circular to be distributed throughout the State, and also gave an outline of a paper on the subject, not fully completed. This paper will appear in the report of the Board.

Dr. Kedzie reported on the subject of wells and water supply in general. He was authorized to make special investigation in this State relative to the influence of graveyards, of curbing, and the influence of dead animals and insects in water.

Rev. J. S. Goodman, chairman of the committee on Education in its relation to Health, made an able report. He gave statistics relative to school-room diseases, such as near-sightedness, the influence of study and confinement in an impure atmosphere in the production of con-

sumption and other diseases, and the influence of a bad position of the body caused by ill-planned school furniture. This paper will appear in the annual report of the Board.

The committee on Legislation in the interest of Public Health was authorized to take such action as they may deem for the best interests of the people in memorizing the Governor and Legislature concerning the negligence of railroad employes, making such carelessness a misdemeanor.

Secretary Baker reported that of the appropriation for 1873, \$272.15 was unused and therefore remains a part of the general fund of the State.

Dr. Lyster read a continuation of his report on "Drainage for Health." The paper will appear in the annual report of the Board.

Dr. H. B. Baker reported further investigations in relation to cerebro-spinal meningitis. This paper will appear in the annual report of the Board, and the investigations are to be continued.

The Secretary read extracts from a letter from Dr. Bliss of Grand Rapids, giving notice of his resignation on account of serious illness.

The Board passed the following resolutions:

WHEREAS, Dr. Zenas E. Bliss, a member of the State Board of Health, has informed this Board that on account of seriously impaired health he has resigned his position as member of this Board.

Resolved, That we have received with extreme regret the announcement of his resignation.

Resolved, That we recognize with grateful appreciation his earnest and successful labors in the work of this Board.

Resolved, That we tender to him our best wishes and our ardent desires for his speedy and complete recovery.

The Secretary was appointed a delegate to attend the annual meeting of the American Public Health Association to be held in Philadelphia, Nov. 10, 11, 12. He was directed to present, with the compliments of the

Michigan State Board of Health, a copy of the book of specimens of poisonous wall paper.

Dr. H. O. Hitchcock was invited to prepare a paper on the work of Local Boards of Health.

The President and Secretary were authorized to purchase text books, transactions, and periodicals for the library of the Board.

Dr. Kedzie and Secretary Baker were appointed to confer with the Secretary of State in regard to the rooms which were to be assigned to the use of the Board in the new Capitol.

The committee on Legislation was instructed to take such action as they may deem best to secure a compilation of the laws of Michigan, relating directly and indirectly to the preservation of life and health.

The work of the State Board of Health has already borne much good fruit, and its labor is not only appreciated at home, but the people of other States are attracted by its efforts. The Baltimore Underwriter says, in able editorial on vital statistics and general sanitary work, that Michigan is the only State in which really commendable progress has been made in the right direction, and in which every pains is taken upon the part of the health authorities to insure that accuracy, definiteness, and thoroughness in the records without which their value is reduced to a minimum.

Reviews.

THE MEANS EMPLOYED AT THE PRESTON RETREAT—For the prevention and treatment of Puerperal Disease, by William Goodell, M. D., Physician in Charge, etc.

We give some extracts of value from this little pamphlet. Good common sense views, worthy of the practitioner will be found therein. We present a specimen.

"No woman is allowed to suffer from after-pains. Whenever these are complained of, one-quarter grain doses of morphia are administered every hour until relief is obtained. In stubborn cases of after-pains I have found nothing act so promptly as the exhibition of ten grains of quinia every six hours, until the ears ring. For this valuable suggestion I am indebted to my friend Dr. Fordyce Baker. Bed-pans are not employed, except in cases of illness, or in cases requiring vaginal injections; but each woman has her own chamber-pot which she uses indifferently, either in the sitting or the knee-elbow posture. Every woman is required to wash her own person at least once a day, and that with carbolic acid soap and a wad of fine oakum, which is at once thrown away. Only under very exceptional circumstances does the nurse cleanse the patient. Should the lochia become offensive, the woman is made to get out of bed and slip into a chair three or four times a day. This usually corrects the fetor; but if it does not, then and only then is a solution of potassic permanganate thrown up into the vagina. Firmly believing the nozzle of a syringe to be the medium of virus communication from patient to patient, I avoid the use of vaginal injection as much as possible. For a like reason, the temperature thermometer is not habitually used, but only in single cases as an aid to diagnosis.

"In addition, for abdominal pains large doses of morphia are given, and the whole belly is painted with iodine, and covered with a mush poultice. The canonical purge on the third day is dispensed with.

"While seeking a substitute for the syringe, my attention was directed to the fact that the act of sitting on the ordinary chamber-pot often forced out putrid shreds or fetid clots, which had not been washed away by vaginal injections. This led me to discard, except in cases of positive illness, the use of bed-pans or of any other utensils—such as urinals—which can be used by a woman lying on her back. Shortly after making this change, I found that, for like reasons, some shrewd and very practical writers of the last and the present century, urged an early departure from the recumbent posture. Further; a residence of some years in the East had taught me that oriental women, at least, can with impunity get up and be about a few hours after delivery. Influenced by these facts, I decided, cautiously at first,

to introduce into the wards of the Retreat a system of puerperal gymnastics, consisting in no restraint whatever as regards the position in bed, and in the daily release from an irksome confinement. I was much pleased to find that the muscular exertion needed for these movements, so far from inducing hemorrhage, excited the womb to contraction, and emptied it and the vagina of their putrid contents. I can testify that whenever the lochia is offensive, these upright positions, repeated several times a day, are excellent deodorants, better in fact than any detergent vaginal injections.

"At the risk of being called an enthusiast, I will go a step further, and hazard the assertion that there is a form of puerperal septicemia not necessarily accompanied by putrid lochia—at least not appreciably so—but indicated by high temperature, rapid pulse, complete anorexia, heavy sweats, and, later, by herpes labialis, which stubbornly resists treatment until the patient is made to get out of bed.

"Quinia is given without stint, because, apart from well-known tonic and antiperiodic properties, it possesses others which make it, above all remedies, the one best suited for puerperal disorders. By lowering high temperature it retards the oxidation of tissue, and hinders the formation of fibrinous concretions. By shortening the excursions of uterine fibres in their alternate contractions and expansions, it lessens the diastolic engorgement of the womb, diminishes the calibre of uterine bloodvessels, and thereby tends to keep their protective coagula from becoming loose and soluble. By contracting the placenta site it proportionately limits that area of absorption. By constricting the coats of capillaries, and by its inhibitory power over the migration of colorless blood-corpuscles, it either arrests suppurative inflammation or restrains its violence. Finally, it seems to exert a positive curative action on the blood in cases of putrid or purulent absorption. Clinically, I have found nothing comparable to quinia as well as a prophylactic against puerperal disorders, as a remedy for them. But it must be given early, frequently, in large doses, and pushed to a high grade of cinchonism."

OBSERVATIONS ON THE PATHOLOGY AND TREATMENT OF CHOLERA.—The result of forty years' experience, by John Mur-

ray, M. D., Inspector General of Hospitals, late of Bengal. G. P. Putnam & Sons, 4th Avenue and 23d St., New York.

This is certainly a valuable and convenient little work. The author who speaks with that confidence which guarded with caution, is born of experience, gives in short and terse sentences several valuable hints. He believed in the cureableness of cholera taken in its early stages of *malaise* or diarrhœa, does not favor the elimination treatment or at least that which bases elimination upon purgation, but advocates general treatment that tends to eliminate by the proper organs, viz. : liver, skin and kidneys. Many remedies are mentioned, but he settles upon a combination of opium, calomel and *black* pepper, with ammonia and camphor as diffusible stimuli, discards alcohol, but believes in moderate doses of quinine. Bile is offered as a remedy also, supplied to the patients from his own liver by use of remedies where it is possible, and if not, then give by mouth. In this connection he says—

“From observation it is well known that after death there is generally found a distended gall bladder, whilst there is no bile in the intestines. It appears to me that this bile is retained in the gall bladder by spasm of the ducts; and that this spasm in those cases that recovered having relaxed as death approached, allowed the accumulated bile to ooze out into the intestines near the seat of the burning pain. It then acted directly on the active germ of the disease, either as an antidote to the poison or neutralising agent; and subsequently appeared in the evacuations.

“The action of an acid solution of pepsine was even more powerful in killing the animalculæ, which it also dissolved.

These remedies were tried for a few months before I left Calcutta by Dr. Baillie, in the Native Hospital, with most decided benefit in all cases where the pulse was perceptible. Half a drachm of bile and fifteen grains of pepsine were given every half-hour. The peculiarity of the progress of the cases was that the first dose of bile was followed by vomiting, sometimes of large quantities of undigested food; but afterwards it was retained, and a change of color soon appeared in the stools;

which was followed by gradual reaction. Dr. Baillie left Calcutta; and I am sorry that I have not, since I came to England, been favoured with the result of any subsequent trials; though I strongly recommended his successor to continue these experiments. There will be opportunities of testing the efficacy of this method of treatment in Europe, which will not be neglected."

Even in such cases, followed by reaction where restlessness subsides and sleep ensues with colored stools he ascribes the result to escape of bile, owing to expiring relaxation of the bile ducts, so even the approach of death acts remedially.

There is one subject that we are particularly pleased to find mentioned, the necessity of isolation of patients, and to find the author opposed to placing them in General Hospital or even in special wards, but advocating special hospitals even in preference to ones own houses, both for the good of the patient himself in many cases and for sanitary purposes. With all we trust this will be the plan adopted if ever again we are scourged with an epidemic.

FIRST ANNUAL REPORT OF THE SECRETARY OF THE STATE
BOARD OF HEALTH of the State of Michigan, for the fiscal year
ending September 30, 1873.

This small volume is full of good material. From the address of the Chairman, Dr. Hitchcock, we quote the following:

"According to the vital statistics of 1870, it appears that from the four principal causes of death, this State suffered a loss for that year of 3284 lives.

"Is there an observant and thoughtful physician who does not believe that by the intelligent observance of all the now known principles of hygiene more than one-half the deaths occurring from consumption, scarlatina, typhoid fever, and diarrhœa, may be prevented and thus there may be yearly saved to the State 1,642 lives that are now lost from these four causes alone!

"Thus, at a low estimate, there might be saved to this State, if the people were properly instructed in and would carefully observe the principles of hygiene, 2,000 lives

that are now annually scarified by ignorance and neglect.

"For every case of death it is estimated that there are 20 cases of sickness which, in loss of time, medical attendance, nursing, etc., cost, on an average, \$50 each. Thus the State loses in treasure by preventable sickness \$2,000,000 per annum, to say nothing of the cost of burying the dead.

"But a far greater detriment is to be found in the prevention of marriages and births of children by the sickness and death of those who would otherwise become parents, and especially in the enfeebled constitutions and inheritable disease entailed upon many children by diseased parents, thus imposing upon the race a tendency to run out.

"Here, then, is the work for this board to do: *to educate the people in respect to the nature and causation of diseases, and the means for their prevention*; to suggest appropriate legislation for compelling, when necessary, the use of those means, and to present arguments for such education and legislation, fortified and made cogent by *facts—will authenticated* cases of disease and death directly traceable to ignorance, neglect or disobedience of the laws of hygiene; and to make it possible by this work that many if not all of the lives and much of the treasure now needlessly lost to the State may be saved."

The organization of the Health Department consists of a Central Board with H. O. Hitchcock, M. D. President, and H. B. Baker, M. D. Secretary, with Local Boards in the different townships of the State appointed by the central board. The Board is divided into different committees for the purpose of efficient work, each reporting upon certain special subjects. Said committee are at present constituted as follows:

1. Epidemic, Endemic, and Contagious Diseases—Zenas E. Bliss, M. D.
2. Sewerage and Drainage—Henry F. Lyster, M. D.
3. Food, Drinks, and Water Supply—Zenas E. Bliss, M. D.
4. Buildings, public and private, including Ventilation, Heating, etc.—Robert C. Kedzie M. D.
5. Climate, general and by season of year, and as relating to age of inhabitants—Henry F. Lyster, M. D.

6. Disposal of Excreta and Decomposing Organic Matter—Homer O. Hitchcock, M. D.
6. Poisons, Explosives, Chemicals, Accidents, and special Sources of Danger to Life and Health—Robert C. Kedzie, M. D.
8. Occupations and Recreations—Rev. C. H. Brigham.
9. Education—The relation of Schools to Health, the kind and methods of Instruction in use, and methods to be proposed—Rev. J. S. Goodman.
10. Geology and Topography; Influence on Health, of Forest Trees and their removal, Shade Trees near Dwellings, etc.—Rev. Charles H. Brigham.
11. The Death-Rate as influenced by Age, Climate, and Social Condition—Rev. J. S. Goodman.
12. Legislation in the interests of Public Health—Robert C. Kedzie, M. D.
13. Finances—Zenas E. Bliss, M. D.

Several papers are furnished by different members and published in the body of the work, one by R. C. Kedzie, on illuminating oils, another by the same on "Poisoned Paper," also one on the proper construction of School Buildings. In all of these valuable information is found. As soon as the old fossil generation that has theretofore (with a few exceptions,) covered the State of Indiana has passed to the better land! May we have an efficient Health Board in our own State. Until then we live in hope.

THE COMPLETE HANDBOOK OF OBSTETRIC SURGERY: Or short rules of practice in every emergency, from the simplest to the most formidable operations connected with the science of Obstetrics. With numerous illustrations. By Charles Clay, M. D., late Senior Surgeon and Lecturer on Midwifery, St Mary's Hospital, Manchester, etc., from the third London Edition. Lindsay & Blackiston, Philadelphia, Cathcart & Cleland, Indianapolis.

This is a valuable work, embracing as it appears to do all the various manipulations and operations necessary in cases of Dystocia, and indeed all surgical interference called for the care of either mother or child. He also gives a chapter on "Gestation," with a view of correcting certain opinions as to protracted gestation. The

author boldly asserts that the term of gestation is longer when the age of one or both parties are increased, but that the average term is from 278 to 280 days.

"I also as confidently assert, that where the dates of conception and delivery can be indisputably obtained, with the true age of both parties concerned, that any two females similarly circumstanced, cohabiting with males of similar ages, the term of utero-gestation would be equal or very nearly so."

The following extracts contain data that are of value :

"Before I conclude, I beg to offer a few remarks by way of suggestion, for the extension of inquiry on this subject. It will be desirable in all cases to be recorded, whether in favor or against the propositions here laid down, to secure the following data: 1st. Date of conception arising from single contact. 2d. Date of parturition commencing. 3d. Age of mother. 4th. Age of father. 5th. In statements of age, where the female is the younger, it must be fixed at the year *below* the mean of the two combined. 6th. Where the female is the older, the age must be fixed a year *above* the mean of the two combined; by this rule the average age on the table (page 124) will give the days of gestation more correctly than by any other known rule.

"It is evident from these, that the only cases that can be relied on for evidence on this point, are those of rape, peculiar cases of seduction, and cases of married life, where, after long absence, a single visit has been made, and pregnancy resulted. It follows, therefore, the cases will be necessarily few, and difficult of selection.

"It will, therefore, be better to consider the ages of the parents of most animals by months or days and not by years. Presuming this, then, in striking the mean of two ages, I would suggest, that where the female is the younger, so many months, weeks, or days *below the mean*; or, where the female is the older, so many months or weeks *above* the mean.

"On this principle I would suggest, as approaching near the truth, but of course liable to some little correction, the following. In striking the average, allow to the

| | | | | | |
|-------|---|---|---|---|------------------------|
| Mare, | . | . | . | . | 8 weeks, more or less. |
| Cow, | . | . | . | . | 6 " " |
| Sow, | . | . | . | . | 4 " " |

| | |
|-----------------------|----------------------|
| Sheep, | 4 days more or less. |
| Bitch | 3 " " |
| Doe Rabbit, | 1 " " |

ESSAY ON CONSERVATION MEDICINE.—By Austin Flint, M. D., Prof. of the Principles and Practice of Medicine and Clinical Medicine, in Belvue Hospital Medical College, New York. H. C. Lea, Philadelphia. Cathcart & Cleland, Indianapolis.

The principal Essay, both as for length and matter contained, is the one on Conservation Medicine. Dr. Flint tells us he is indebted to his colleague, Dr. Hamilton, for this phrase, being analogous in meaning to the well recognized phrase, "Conservative Surgery." Heroic practice being formerly the rule—now relying more upon "efforts of nature," with the appropriate accompaniments "allimentation," etc., formerly a "cathartic and pot-full of peas," now a "bromide and beef tea." The Doctor continues the subject under the various heads of "conservation medicine as applied to therapeutics" and to "hygiene." Two or three of these Essays are not only interesting reading, but contain much that is of importance. But the majority of them are rather "school boyish." They will not injure any one in being perused, nor will they instruct greatly.

LECTURE ON CLINICAL MEDICINE.—By A. Trousseau, Late Prof. of Clinical Medicine in the Faculty of Medicine, Paris, etc. Translated from 3d revised and enlarged edition by Sir John Rose Cormick, M. D., F. R., S. E., fellow of the Royal College of Physicians of Edinburgh, etc., and Victor Raymin, M. D., assistant Physician to the National Hospital for the paralyzed. Complete in two volumes. Lindsay & Blackiston, Philadelphia, Cathcart & Cleland, Indianapolis.

The German edition published in five volumes. All the lectures in the original are found in this edition. Difference in price. 5 vol., \$23; 2 vol. in cloth, \$10; 2 vol. in sheep, \$12. Nothing need be said of this work so well known as it is, other than that the present edition is in a convenient and cheap form, and at the same time complete in detail.

THE OBSTETRICAL JOURNAL OF GREAT BRITAIN AND IRELAND—With American Supplement, by William F. Lusk, M. D. H. C. Lea, Philadelphia.

This is certainly a very excellent Journal. We do not know that it excels in all respects the American Journal of Obstetrics, Edited by Dr. Dawson of New York, but it gives us the best obstetrical literature from “across the water,” while the supplement supplies the latest of interest in this country. The two Journals certainly present to the practitioner and scientific physician as much matter in this line as he can properly digest in one month at least.

ADDRESS IN OBSTETRICS—Delivered before the Medical Society of the State of Pennsylvania, May, 1874, by Wm. B. Atkinson, M. D., etc.

We have before us now three “addresses” in obstetrics, one by Dr. Mathew Duncan, before the British Association, another by Dr. T. Parvin, before the American Medical Association, and the present one by Dr. Atkinson. We intend at no distant period to compare and review at length. They are each full of valuable information, statistical and otherwise.

Editorial.

The inaugural address before the British Association for the advancement of science, at Belfast, August 19, 1874, by the President, John Tyndall, D. C. L., LL. D., F. R. S., with fine Portrait and Biographical Sketch has been issued.

Also, a descriptive essay by Prof. H. Helmholtz, of Berlin, with Prof. Tyndall's famous article on Prayer, and a Religious Criticism thereon by Henry Evans, together on heavy tinted paper, in extra cloth, \$1.00.

The same, in pamphlet form, 50c. In cheaper form 25c. The Inaugural says: "The questions here raised are inevitable. They are approaching us with accelerated speed, and it is not a matter of indifference whether they are introduced with reverence or irreverence."

The *N. Y. Tribune* says: "Prof. Tyndall crosses the Rubicon—It is the opening address of the President of the most important convention of scientific men in the world. Every line of it breathes thought, power, eloquence. . . . It is in many respects one of the most extraordinary utterances of our time."

The *N. Y. Commercial Advertiser* says: "Prof. Tyndall has inaugurated a new era in scientific development, and has drawn the sword in a battle whose clash of arms will presently resound through the civilized world."

Those wishing either work will address, A. K. Butts & Co., 36 Dey Street, New York.

THE attention of the profession is called to a new Journal under the title of *Archives of Dermatology*, which was to appear on the first of October, and quarterly thereafter. While the "*Archives*" is American in origin, and is intended to represent American Dermatology fairly, every effort will be put forth to make its scope cosmopolitan, both by securing original contributions from foreign dermatologists and syphilographers, and by devoting nearly or about one-half of each issue to the Digest of current literature, which is designed to embrace everything of value bearing on the subject.

Its pages will contain:

- I. Original Articles.
- II. Transactions of the New York Dermatological Society, including papers, cases and discussions.
- III. Clinical Reports.
- IV. Extracts and Translations.
- V. Digest of Dermatological Literature.

VI. Reviews and Book Notices.

VII. Correspondence and Miscellanies.

Subscription, \$3.00 a Year. Single Numbers, \$1.00

G. P. PUTNAM'S SONS, Publishers,
Fourth Ave. and Twenty-third St., New York.

IN the August number of the Nashville Journal of Medicine and Surgery, we find as Editorial an article headed "The late Dr. Jennings," in which the writer emits either *post-mortem* expression of hate, or tries to indulge in a string of cheap wit. We did not know Dr. Jennings when living, never heard of him and have no interest in him or his memory, but death like age, but in a greater degree, carries with it the elements of respect, at least of silence. "It covers a multitude of faults," and he who would continue his fight with a man beyond the grave, forgets himself. We have no doubt that in a moment of forgetfulness, the writer has mentioned that which he will not maintain as altogether correct under the circumstances. Let the dead rest, brother; our time will come soon enough when we would wish our faults buried with us.

Dr. Hays

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No. 8.

Original Communications.

SCOPEMANIA.

BREWER MATTOCK, M. D., ST. PAUL, MINN.

The designative or characteristic ornament of the surgery or office of the old-time physician or leech was, if we may trust the caricatures handed down to us, a stuffed alligator pendant from the ceiling; and in our mind's eye, we see the old worthy of former days wrapped in scientific contemplation, bewigged, with hands clasped, and eyes fixed upon this hanging suarian. A patient enters perchance, seeking advice and medicine; and we hear the old man's ponderous voice as he learnedly mouths over in the ears of his appreciative listener the set medical terms of the day. He discourseth of humors, of purulence, of pocks, of churnels, of disease of the womb, of sweats and pores, etc., etc.; and then he dispenses his complicated medicaments, of which he prides himself that they are composed of "rare and costly ingredients, full two score in number and very powerful." When the learned man ventures out to visit his patients, his designative badge is a cane, with snuff-attachment.

The representative medical man of the nineteenth century is not an old man; he is young or middle aged. He is essentially social, passably educated, dresses well, and behaves himself as a gentleman, when behavior is necessary; but his behavior never stands in the way of his enjoying his glass and his joke with those who helped him in his early days. As a rule he never gets above himself and forgets old acquaintances, at least until he is firmly established with another set. He is partial to good horse-flesh, and insists on having his carriage re-varnished every spring. This is not merely a matter of pride with him; it makes him to be ready for a trade at a moment's notice. Your physician prides himself on never being cheated on a trade. His office is carpetted with dirty Brussels. His library is small and commonplace. What the alligator was to the old doctor, the microscope is to the new. It is usually ostentatiously displayed, and is at once the center-piece and the chief object of attraction. It is sometimes flanked by a battery, or some sort of a spray producer, and always by a lot of uterine instruments. If the wall is not tacked about with photographs of patients before they were operated upon, it is because the space is occupied by diplomas or some other certificates. Maybe physicians are not members of such societies, notwithstanding the apparent interest.

In his office the physician of the present day is not one whit behind the old worthies in scientific conversation, and the superabundant use of medical terms. The terms have changed however. The talk is now of organic lesions, textural changes, degeneration of tissues, displacements, inflammations, nervous irritations, and catarrhs. He is debarred from enlarging in his remedies, because he prescribes; but he loses not the opportunity of exhibiting his apparatuses as "necessities to a correct diagnosis."

When he goes abroad, he is recognized by the pro-

bangs, uterine sounds and speculums sticking out of his pockets—not ostentatiously are they displayed, but they are exhibited as if by inadvertence or accident. Characteristic physicians are like diseases; types change with the years, but the distinguishing peculiarities are easily recognized.

This much for prologue.

The tendency of the times seems to be the extravagant introduction of all sorts of new-fangled contrivances as mechanical aids to diagnosis and treatment; and the aspirant for medical honors sees advancement to professional success and standing only attainable by contriving, originating or improving upon some sort of an apparatus, appliance, or instrument.

To this we enter no protest. We say to the genius, go on inventing and improving, and maybe every five or ten years the profession will be indebted to some one. It would be strange if, out of ten thousand new mechanical combinations or contrivances, some one would not be valuable and lasting.

But here is where we would enter our protest. We object in strewing the way of young aspirants for professional standing with too much of this machinery; and we object to teachers laying too much stress in their teaching upon mechanical appliances, either in diagnosis or treatment, to the exclusion of the inculcation of sound professional principles.

Time was when a young man came home from his lectures with a stethoscope and a pocket case, and commenced practice. Such a modest armentarium, we admit, was insufficient, but other instruments were sent for as needed. Now-a-days a young man that commences practice without an expensive microscope, an ophthalmoscope, a laryngoscope, various stethoscopes, several speculums, uterine knives, pessaries, sponge tents, urinometers, a respirator, etc., thinks himself unsupplied with the ordinary implements of his profession.

But we are answered there is no law to prevent a young man from buying all that he wishes to or has money to purchase. We reply that there is necessity of teaching a student that high professional attainment can be reached without a knowledge of any, or at least but few of these things. We believe that the student should be first taught that his eyes, his ears, and his fingers, are for the present sufficient for diagnostic purposes.

Great is the man who can make a correct diagnosis with the thermometer, the stethoscope, and the microscope; but greater is he that can form a diagnosis without them.

The student is taught that he must require from every female who complains of uterine distress that she submit to a visual or digital examination. How much moral and physical mischief has this cruel and indecent dictum occasioned! But the uterine specialists insist upon it, else their cry would be like the silversmiths at Ephesus, our occupation is gone.

Uterine examinations made with the frequency which are common at the present day, are objectionable for numerous reasons. 1st. They are unnecessary, and in many instances do positive damage; they not only occasion pain, but oftentimes aggravate acute temporary irritations, and occasion positive suffering. 2d. They encourage the unnecessary use of the various appliances they invite surgical interference and operations where no such operations are necessary, one of the most objectionable of which is the use of the uterine sound. How many abortions are yearly occasioned by the indiscriminate use of this infernal instrument? And how much unnecessary suffering does its use occasion? Then if it were not for these examinations how much less cauterizings would be practiced and pessaries introduced? The journals tell us of the severe uterine diseases cured, but do they ever touch upon the diseases occasioned as the result of the indiscriminate use of the speculum?

There seems to us to be a remarkable parallelism between the disease of the throat and diseases of the womb. The tissues are remarkably alike, and the diseases incident to both are much the same. We have congestions, irritations, granulations and ulcerations. We have enlargements, hypertrophy of the uvula and tonsils in the throat as in the uterus. We have displacements as muscular debility of the palate, and we have catarrhs of both structures; and the treatment usually adopted for the diseases incident to both are much the same.

It is but a few years since the profession, with an accord, commenced to cauterize the throat with nitrate of silver, and to sponge it out with probangs saturated with nitrate of silver. This practice has gone largely out of use, and gargles and spray has superseded it; when any medication is required, and in the vast majority of acute cases, we trust to rest of the parts and hygienic treatment alone. The time is not far distant, we trust, when diseases of the vagina and uterus will be treated as rationally.

We venture the assertion that there will yet appear one greater than Sims. The title of his work will be "the uterus hygienically and rationally considered." We venture the prophecy that he will advocate a non-meddlesome treatment. His remedies will be no more severe than injections, and his treatment will be constitutional largely. He will start with this fundamental doctrine. "Every female must expect, during her mature life, to suffer at times more or less uterine distress. Its amount and duration will depend largely upon herself."

Uterine disorders are, like dyspepsias, of almost universal frequency, and their cure must depend largely upon the afflicted individual. There are many chronic dyspeptics, just as there are many chronic uterine cases, which are practically incurable. Such patients usually are sensuous and senseless. Such patients add to our incomes, but subtract from our patience.

Our rather extended remarks upon the uterus are the result of witnessing, during an entire winter, and participating in the treatment of the uterus, at one of the foreign female hospitals. A peculiarity of this hospital was that each of the four or five attending physicians—all men of eminence—treated uterine disorders different from his colleagues. Each had a reputation to establish, and each worked upon a foundation of his own laying. One used pessaries, another caustics, another injections, and another treated his patients almost entirely constitutionally; and our experience was that the last named treatment was the most successful.

We add further, in closing this part of our subject, that at least two-thirds of the uterine examinations we witnessed that winter were wholly unnecessary; they could have been diagnosed without an examination.

What shall we say upon the ophthalmoscope? We say frankly that it marks an era in the treatment of diseased eyes—in the hands of experienced operators. We think we are not out of the way in saying that there are in use in the United States at least ten thousand of these instruments.

We remember to have heard the late Professor Pope, of Illinois, speak as follows of this instrument: "I doubt if there are three men in the country who are perfectly familiar with the use of this instrument. As for me, it was three months before I could detect the least headway in its use." Its use is very much overrated, we think, and is applicable only to rare affections of the eye, and it is capable of doing a diseased eye much damage when improperly used; and yet how many doctors "couldn't live without it."

The laryngoscope is another instrument—valuable in the hands of the few. The sale of them is largely confined to young doctors. The instrument is harmless, but it tempts to the use of too much caustic.

The nasal douche has been of much value to many practitioners. But the harm that has resulted from its

indiscriminate use has been incalculable. Yet there are "few families that can now do without them."

The thermometer no medical men should be without; in rare instances it is invaluable, but the indiscriminate use of it, we think, will result in its being laughed out of the profession in a few years. Let us suggest to the practitioner that preceding its use a glass of water be always called for, and it be washed, before and after using, in the presence of the patient and his friends. It is a desperately deceitful instrument, and one must not always send for the clergyman by its markings.

The spray producers and atomizers are of much value, and their use inaugurates a medical era.

The different times and instruments which cut automatically are, as a class, dangerous. We do not approve of cutting much by machinery.

Before graduating, we invented an elaborate instrument—a craniotome. We carried our model to several of the professors, some of whom complimented us upon our skill. At last we carried it to old Professor ———, who sat with his legs hoisted upon the stove. He looked it over very carefully, and replied—"A good thing, but I always use my jack-knife." If we are ever called upon to pierce a child's head, we shall use our pocket knife. The instrument still is a model—of misdirected ingenuity.

We would speak of but one class more of appliances, which, in most instances, are useless and mischievous—we refer to fracture apparatuses.

It may safely be stated that hardly any two fractures in our practice are similar. By this we do not mean the mere breaking of the bone, but the build, form, condition, and age of the patient, as well as habits and surroundings. Take, for example, fractures of the thigh. One is a robust, extremely muscular, ignorant and stubborn laboring man. Another is a flabby, nervous old gentleman, who is constantly fidgetting and very intrac-

ticable. Another is a man who is in good condition and scrupulously careful to obey directions. Another is a female, and the last a child. These patients, irrespective of the mere fracture, require almost as many different appliances, or rather modifications, of the one general principle of counter extensions and immobility. We may treat one of these patients by simple counter extension and the sand-bags. Another must be strapped immovably to a long splint. Another must be treated by a molded splint or starch bandage; while we must humor the old gentleman with different appliances.

Mr. Surgeon A., B. or C. is a mechanic of the first class. He improvises or invents an apparatus for a particular case with great success. He therefore rushes to print and ingraining, and introduces something new. The apparatus looks novel and reasonable, and is largely manufactured and sold. It falls into the hands of those who have not the ingenuity to apply it, or the judgment to decide upon its merits. The inventor himself maybe never uses it again, because he never has another patient to whom it is applicable.

Now the physiciau, young or old, who has no apparatus, is forced to treat a fracture on simple general principles. The simpler the appliance the more care and watching is required, and the result better. Not only this, but the patient, understanding the theory and principle of treatment, interests himself in the cure. This he can not do if the limb is locked up and hidden from view in an elaborate apparatus.

A case in point occurs to me. X—— sustained a fracture of the tibia and fibula. He was a young man of intelligence, and could have treated himself with a simple fracture box, and recovered without a trace of deformity, under the supervision of a wise physician. Unfortunately the young doctor locked it up in one of his preceptor's improved apparatus, and left it. The result was an overlapping of the bones and shortening—a scandalous result for such a fracture.

It should be remembered that the test of a first class mechanic—an iron worker, if you please—is not his knowledge of a lathe, but of the file, the hammer, and cold chisel. A good carpenter is not tested by his knowledge of a mortising machine, but by the way he makes a mortice by hand. The test of a good surgeon is not how to apply apparatuses, but by getting along without them.

The same is true of diagnosing. Better is he who can diagnose a malignant growth without a microscope than he who relies only on his lens. Better be a good judge of the pulse by feel, than be an expert manipulator of the sphygmograph. He who ties himself to an apparatus of any form, shape or kind, allows another's invention to take the place of his own perception. If I use a mallet for percussing, I must discontinue the use of my finger-ends.

The same is true of the stethoscope, but this instrument we can not so well dispense with.

Our conclusion of the whole matter is this. We would have the physician of to-day—a man of judgment, of knowledge, and of brains. We would have the centerpiece of his office a head, not a microscope nor an ostentatious display of instruments. We would have the young physician come home from his lectures with a well stored head, and not with a well stocked armentarius.

DISEASES PREVAILING DURING THE LAST FEW MONTHS.

BY S. W. WEDDINGTON, M. D., OF JONESBORO, IND.

Read before the Grant County Medical Society.

The diseases prevailing within the bounds of my practice during the last three-quarters of a year, have seemed to differ with those of former years, many cases

being of grown character and difficult to treat. Last autumn, during what we commonly call the sickly season of the year, heavy and persistent congestions, of rather a passive character, prevailed. The cases presented what some have termed the Algid type. Reaction was feeble and came up slowly, and in some cases there seemed to be no reaction for several days from the invasion. Generally there was an increase of congestion with depression of the vital powers every other day, not attended with much feeling of coldness, but frequently attended with profuse colliquative diarrhœa. In those cases there was a tendency to a typhoid condition, and unless the paroxysm could be arrested speedily the fever assumed a typhous or typhoid character, about the close of the first week. As the season advanced and the weather became cool approaching to winter, the typhoid tendency became more general, and some cases seemed not to be of a periodical type, but presented the symptoms of typhoid or enteric fever from the commencement. During the winter we had a general and well spread epidemic of measles, which presented nothing very peculiar. The lungs were heavily congested in most of cases, but fully developed pneumonia was rare. Few cases proved fatal. The most dangerous complication seemed to be capillary bronchitis, attending or following the rubeola. Periodical fevers, generally of tertian or double tertian type, prevailed to some extent all winter with pneumonia, and some cases occurred during the spring complicated with erysipelas. During the spring there seemed to be a greater tendency to nervous prostration than I ever before witnessed, for which I could not account, unless it resulted from the depressing effect of the long cold winter. Many cases seemed to require the constant use of tonics, stimulants and revivers from first to last. There was also a greater tendency than usual to rheumatism and neuralgia, or rather to what some call nervous rheumatism, which I

have found to be very obstinate. During the last two months we have not had much sickness, but we have had a few cases attended with heavy congestion in the chest or head, and an eruption of rather a non-descript character has prevailed, the cases differing much in appearance and generally not serious.

I have said that I found some of these varieties of disease difficult to treat. My principal object in bringing this subject before the society is to elicit expressions of opinion as to the best method of treating such cases. In the peridical fevers mentioned as occurring last fall and winter, I found it very difficult to prevent the return of the paroxysm. For that purpose sulphate of quinine was my chief remedy, but, it seemed to me, that when given in large doses it increased the prostration and hastened the typhoid stage without preventing the return of the paroxysm; while small portions seemed inadequate. I used arsenite of potash and sulphate of strychnia to some extent, and, I thought with some advantage; but I was afraid to use them freely when the vital power seemed much prostrated. (Dr. Kersey said, in answer, that he would not be afraid to use those articles on account of prostration.) I also used carbolic acid freely in some cases during the winter, and thought that it was beneficial. I also used opiates, and the salts of iron, and the salts of potassa freely. Minerals I used but little, sometimes giving a portion of blue mass, and more frequently hydraggorum cum creta in combination with quinine. In some cases I did not use minerals at all. It seemed to make little difference whether they were used sparingly or not at all.

I have thought that I derived more benefit from sulph. acid than from any other one article as a general tonic, and ol. tereb seemed to be beneficial in typhoid cases. For diarrhœ attending those fevers I used oxyd or sub nitrate of bismuth, tannic acid and opiates.

I did not find any treatment that would arrest those fevers quickly, although they were arrested finally, not many cases proving fatal. The fevers which prevailed in the spring, attended with nervous debility and prostration, and in some cases complicated with erysipelas, I found most fatal. I treated them on general principles with tonics, revivers and stimulants; with quinine, tincture iron, dil. sulph. acid, serpentaria, valerion, val. zinc, bom. potassa, carb. ammon. and brandy. Treatment did not seem to have any decided effect. Those who recovered improving very slowly. I would be glad to know what medicinal article is the best tonic for the nervous system. (Answered by Dr. D. C——, strychnia in small doses frequently repeated.) Congestion of the brain, in cases of children, I found very unmanageable. Strong counter-irritation would give some temporary relief, but the returning paroxysm would renew and increase the congestion, and quinine seemed to aggravate the brain disease, instead of preventing a return of the paroxysm. The attending neuralgia and nervous rheumatism I have found troublesome and difficult to relieve. I have used for the rheumatic cases, in addition to the nervines mentioned above, Tr. Cimicif., also Colchicum, but not largely. Most of cases have improved but slowly.

For severe neuralgia, affecting generally the head, but sometimes other parts of the system, I have procured temporary relief by the use of hydrate, chloral, and brom. potas., combined in some cases with morphia. Such neuralgia is generally paroxysmal, and for its cure I have depended principally on the use of quinia, but have had to use it largely to accomplish the purpose.

I have had a case on hand the last six weeks, which has given me trouble. This case commenced as intermittent fever, with very severe neuralgia in the head, and something like general nervous rheumatism. Quinia seemed to increase the headache, and was not well borne;

but finally three grains per hour till thirty grains were given, in combination with val. zinc., arrested the paroxysmal exacerbations.

Since that time the case has presented a febrile condition, with anorexia, paucity of all the secretions, general torpor and debility, a bluish appearance of the skin, erratic pains affecting various parts of the system, attended with tenderness and slight swelling, but not with redness; also an eruption resembling rupia or pemphiges, but not agreeing with the description of either. Small swellings occur on various parts of the body, but principally on the hands and feet. They are quite red, slightly elevated, oval in form, and about half an inch in diameter, painful and very tender, but not itching. On the center of each of these elevations is a small vesicle, a little depressed, which contains blood or bloody serum. In a few days the swelling subsides, and the vesicle separates in the form of a dry scab, without ulceration. The fever has been returning every few days, preceded each time by a slight chill. With each return of the chill and fever, all the derangements mentioned return or increase. These relapses or returns of the fever are not difficult to check, and the patient seems to be gradually improving. The treatment of this case has been principally tonics and diaphoretics, with occasionally aperients, and occasionally small portions of mercurials, and a portion of the time free use of iodine, chl. potas. and hyper. sulph. soda. Strych. has been used in small portions a part of the time, and cimicif. a part of the time. Acid tonics and acid drinks have been used freely, and generous diet recommended, but not used to any great extent for want of an appetite. The rheumatism, the eruption, and the tendency of the fever to return, seem difficult to overcome.

This completes the paper as read before the society. I will add the subsequent history of the case. The case lingered on, about as described, some three or four weeks, when a chill, with heavy congestion, was follow-

ed by continued fever, and a most intolerable pain in the head, which gradually gave way after three or four days, followed by a typhus, semi-comatose and partially delirious condition, with extreme prostration. So grave were the symptoms of brain disease that one of the most scientific physicians in the county diagnosed ramollissement of the brain. The treatment was substantially the same as that used at the first attack, with the addition of a very free use of sulph. of soda. The disease gradually gave way, and the patient slowly returned to health. His recovery seems complete.

TUMOR OF THE UTERUS.

BY DR. SPOONER.

Read before the North Eastern Indiana Medical Society.

February 6, 1873. I was called to see Mrs. P., aged 48, a German lady, the mother of five children, who presented the following history. Her last confinement was ten years before. Five years previous to the time I was called, the menopause had made an effort to establish itself, and her general health had been compromised considerably during the ensuing five years.

She had had frequent attacks of menorrhagia and metrorrhœgia, one following the other in quick succession, and both followed by a watery discharge. The urine would be retained three or four days at a time, the abdomen becoming very much enlarged and painful. Uterine contractions and consequent pain would be excited, large clots of blood expelled, urine pass in enormous quantities, abdomen relax, pain subside, and the general health be restored for a time, only to repeat the melancholy train of phenomena at each menstrual epoch—variable in time from four to eight weeks, as

the case might be. Within the last year, however, the menses had entirely ceased.

From some unknown cause contraction of the uterus, and consequent pains, resembling labor pains, were excited about the fourth of the month, (February, 1873.) A physician was called next day who diagnosed pregnancy and labor, told her she would soon be delivered and left her.

The next day (February 6) I was sent for, found the patient rather pale, with a peculiar *weary* expression of countenance, but not exhausted to the extent one would be led to infer from the history of the case. On examination per vaginam, I found a large tumor projecting through the os uteri into the vagina about three inches the presenting part as large as a child's head, and gradually enlarging in size as it ascended towards the fundus, so as to completely fill the vagina and uterus. It presented a peculiar boggy, hard, but elastic feel, hard to describe. Using the thumb and fingers of my left hand for the blades of an impromptu speculum, I could bring the presenting part into view, disclosing a light colored mucus membrane with broad wavy irregular or zigzag lines of a pink blush color, running over the body of the tumor. Puncturing with a needle was followed by quite a free flow of black grumous blood. Sweeping my extended fingers around the tumor, and at the same time carrying them toward the fundus, I was enabled to pass them through the cervix on the anterior, and perhaps two inches above the cervix on the posterior wall of the uterus, when from the very large size of the tumor, the pain it caused, and as I then supposed from the powerful contractions of the uterus, I was obliged to refrain from a more extended exploration at the time.

Saw the case next day with Dr. Ford, but without any additional information being gained. Saw the patient on the 14th with Drs. Ford, Chamberlain, Cowan

and Casebeer; patient had failed rapidly in the seven days intervening my visits, from the 7th to the 14th.

With the hope that the tumor was attached by a small neck, and that we should be able to encircle the neck with the chain of the ecrasuer, chloroform was administered and a thorough exploration made, which revealed attachments occupying the whole fundus, anterior wall, and nearly all the posterior wall of the organ. After a consultation it was deemed inadvisable to perform any operation, (as the obstacles to a successful operation were considered unsurmountable,) and the case abandoned as an hopeless one. Patient failed very rapidly and expired on the 21st, when I was called to conduct a post mortem. I removed the uterus with the tumor, ovaries, fallopian tubes and bladder. I found the tumor much as described in preceeding paragraphs; the bladder was enormously dilated and distended, and contained about one *gallon* of urine. Except its thinned walls it presented a normal appearance, the presenting part of the tumor had changed in color, now of a dark red hue. After the bladder was dissected off, the tumor enveloped by the uterus weighed twelve pounds, it could with difficulty be made to pass through a circular opening six inches in diameter; it was fourteen inches in length including the uterine wall at the fundus. The body of the tumor was considerably constricted where it had been encircled by the cervix, presenting an hour-glass appearance. I can no better describe the attachment than by asking you to imagine a uterus inverted and dilated, so that its diameter at the fundus would increase six inches, with the line of its axis leaning towards its *anterior wall*, so that the surface of a liquid would correspond to the inner os on the anterior wall, and two inches below the inner os on the posterior wall, (the organ being inverted.) Now imagine the liquid a solid, and with solid adhesions, connecting the entire uterine walls and the contained body, of course

excepting the small segments of the posterior wall remaining above the imaginary liquid, and you have a very good idea of the *attachments*. In other respects the tumor was as above described.

Proceedings of Societies.

ANNUAL MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

The American Public Health Association convened in Philadelphia, November 10th, at 12 o'clock, at the hall of the College of Physicians, corner of Locust and Thirteenth streets. The Association is about two years and a half old, and commenced its public meetings at Cincinnati in June, 1873. The second meeting was held in New York in November last. The present is the third public meeting. The object of the Association is the advancement of sanitary science and the promotion of organizations and measures for the practical application of public hygiene. The members numbered some of the most distinguished medical and other professional men in the United States who have shown interest in our devotion to sanitary studies and allied sciences and to the practical application of the same.

Among the prominent members at the present session are Stephen Smith, M. D., Health Commissioner of New York, President; Dr. E. Hains, Registrar of Vital Statistics, Secretary; Dr. John H. Rauch, late Sanitary Superintendent of Chicago; Dr. Edwin M. Snow, Superintendent of the Board of Health, Providence, R. I.; Dr. Ezra M. Hunt, President of the New Jersey Sanitary Commission; Dr. J. J. Woodward, Surgeon U. S. A., Washington; Dr. J. S. Billings, Surgeon U. S. A.;

Dr. B. C. Miller, Sanitary Superintendent of Chicago; Dr. Desault Guernsey, of Amenia, New York; Dr. Mænnheimer, Sanitary Inspector, Chicago; Dr. J. J. Quinn, Health Officer of Cincinnati; Dr. Thomas L. Neal, Health Officer of Dayton, Ohio; Dr. S. J. Jesson, Health Officer of Pittsburg; Dr. Samuel C. Busey, of Washington; Dr. C. F. Rodenstein, Sanitary Inspector, New York; Dr. J. M. Woodworth, Supervising Surgeon U. S. Marine Hospital, Treasury Department, Washington; Dr. Heber Smith, Supervising Surgeon, Marine Hospital New York; and Dr. J. M. Toner, of Washington D. C.

Prof. Hartshorne then proceeded to read a carefully prepared paper on the Excessive Infant Mortality of Cities, and the means of its prevention.

Dr. Toner, of Washington, D. C., pronounced the paper read by Dr. Hartshorne, a very valuable and important one, and moved that it be referred to the Committee on Publication, to be printed in the proceedings of the association. Carried.

J. R. Black, M. D., of Newark, Ohio, presented a paper on the Influence of Hereditary Diseases on Health, with suggestions on prevention and eradication.

Dr. Hartshorne, of Philadelphia, moved that Dr. Black's paper and Dr. Richardson's remarks be referred to the Publication Committee. Carried.

Edward H. Janes, M. D., of New York, presented a paper on The Health of Tenement Populations and the Sanitary requirements of their dwellings.

After some remarks from Prof. Samuel Gross and Dr. Hartshorne, as to the importance of the citizens of Philadelphia being informed of and attending the meetings of the association, an adjournment took place at a quarter past 2 o'clock, until 3.

When the association reassembled, Dr. H. B. Baker, Secretary of the State Board of Health of Michigan, read "A Report upon the Death Rates of each Sex in

Michigan, and comparisons with Dr. Farr's Life Tables of Healthy Districts of England."

In stating and comparing the death rate in Michigan, Dr. Baker said that he did so by means of life-tables, for the reason that he did not know of, any other method whereby it could be properly stated or compared. The annual mortality is such a per cent. of the living inhabitants, but the population of our cities and States is far from a fixed one, and the death rate depends so much upon the age and sex of the inhabitants that no very useful estimate of the healthfulness or unhealthfulness of a climate or locality can be formed from such imperfect data. It is requisite first to construct a life-table, or to reduce the statement to one concerning a "fixed population," that is, a population such as would be maintained in that locality by a constant and uniform birth-rate alone, without immigration or emigration.

Dr. Baker called attention to the fact that the life-tables for females in Michigan does not show any extraordinary increase of the death rate of women, aged forty to fifty years, as compared with the males of the same ages. On the contrary, for about all ages over that of fifty years, the death rate of males excels that of females. It increases somewhat rapidly, however, for both sexes at about that age.

Elaborate tables and diagrams were offered to the members of the association by Dr. Baker.

SECOND DAY'S PROCEEDINGS.

The first paper was one by Dr. Hunt, of New Jersey, upon building-ground in its relations to health and disease, and it drew forth a brief discussion in reference to the want of sanitary arrangements at our watering places. Dr. S. C. Busey, of Washington, next read a paper upon the gathering, packing, transportation, and sale of fresh vegetables and fruits. Dr. Elisha Harris, the efficient Secretary of the Association, had a very voluminous paper prepared upon sanitary government,

vital statistics, and the methods of public health administration in the cities and large towns of North America, but as it is to be hereafter published at length, he merely read it by title.

Dr. Toner, of Washington, followed with an important report on "The Conditions and Accidents which Endanger, Limit, or prevent Vaccination from giving full protection against Small-pox," after which Dr. Edwin M. Snow, of Rhode Island, read a paper upon the question: "Does Small-pox become Epidemic, or is it spread solely by its own Contagious Property?" Other papers of importance were presented, which, with those already mentioned, will be found in the report of the proceedings.

The evening session of the Association was very largely attended, Mr. W. S. W. Ruschenberger, of Philadelphia, presiding. Prof. C. F. Chandler, of New York, was to have read a paper on "Practical Application of Chemistry in the Public Health Service," but, owing to previous engagements, he was not able to attend.

Prof. Edward Orton, President of the Ohio Agricultural College, having been introduced, read a paper on "The Relations between Geology and the Sanitary Science." He showed how geological structure affects the water supply, and how wells are rendered injurious by the too close proximity of cess-pools, and asserted that the drift-wells of the country, in all densely populated districts are utterly unsafe for human use. To wells and springs, however, where they are properly located, and where they are properly guarded against doing the various work of discharging sewerage, they should look for a proper water supply. Roof water gathered in properly constructed cisterns is, he said, always safe, and so is running or river water.

Gen. E. L. Viele, civil engineer, next read a paper on the principles and practice in drainage and sewerage in connection with water supplies.

THIRD DAY'S PROCEEDINGS.

The Association reassembled at 10 o'clock, President Stephen Smith, M. D., in the chair.

It was on motion resolved that the business meeting and election of officers and committees should be postponed until to-morrow morning.

Dr. H. B. Baker, Secretary of the Board of Health of Michigan, presented to the association, on behalf of the board, a portfolio containing specimens of poisonous wall-papers collected in different cities in Michigan, accompanied with explanatory text.

Prof. J. L. LeConte, of this city, made a few remarks upon the subject, and drew attention to the same indiscriminate use of poisonous substances, (arsenic and Paris green) in agriculture. He thought that the matter should be referred to a scientific commission.

Dr. John M. Woodworth thought that the evil of which Prof. LeConte spoke was deserving of all notice and subsequent correction. Every man of science in the United States viewed with horror the extent of this abuse. He moved that the Executive Committee should be requested to consider the propriety of appointing a special committee on the subject. Carried.

A communication was received from Dr. Francis Bacon, of Yale College Medical School, inviting the association to hold its next annual session at New Haven, Conn., which was laid on the table for the present.

After the election of several new members the reading of papers was proceeded with.

Dr. Stephen Smith, of New York, President of the Association, presented a paper upon "The Reciprocal Relations of the Public Health Service and the highest Educational Qualifications of the Medical Profession."

J. S. Billings, M. D., Assistant Surgeon, United States Army, presented an "Abstract of special Reports by Army Medical Officers on the Effect of Mountain Climate upon Health."

Dr. Billings said that he was authorized by the Surgeon General, to read extracts from various special reports in relation to the effect of mountain climate upon health, with particular reference to the effect of altitude upon diseases of the lungs.

George M. Beard, M. D., of New York, presented a paper upon "Hay Fever, or Summer Catarrh." "Original Researches upon the Geographical, Topographical, and other Etiological Characteristics of the Malady, with reference to its Causation and Prevention."

John C. Peters, M. D., of New York, read a paper upon "The Stealthy Introduction and Spread of Infectious Diseases in Large Cities."

NORTH-EASTERN INDIANA MEDICAL SOCIETY.

The Society met at Angola, on Tuesday, March 4, at 10 o'clock, Dr. Dancer presiding.

The minutes of the last meeting were read by the Secretary.

Dr. Denny remarked that the minutes should have stated the result of an amputation at the knee joint, by Dr. Erickson, and reported by him at the last annual meeting. In the discussion which was then had, some of the members had taken ground against knee-joint amputations, and it would therefore be justice to Dr. E. to state that he presented the patient to the last meeting with a good stump completely healed—the operation being entirely successful in his case.

The correction was made, after which the minutes were adopted.

The censors reported the names of W. C. Fluke and W. A. Waller for membership.

Reporting cases was then declared in order.

Dr. Spooner reported a case of tumor of the uterus, which will be prepared for publication. The case led to an extended discussion.

Dr. Carr also reported a case of uterine tumor. The Society requested the Doctor to make a written report of the case, to be read at the next meeting.

Miscellaneous business was next in order.

Dr. H. D. Wood made some remarks concerning the incompetency, as well as dishonesty, of druggists in filling prescriptions. He believed legislation was necessary on this subject. It should be made a criminal offense to substitute medicines for those prescribed, or to use impure drugs in filling prescriptions. He moved that a committee of three be appointed to report resolutions relative to this matter; said committee being empowered to present the same to the State Society, if accepted by this Society. The motion was carried.

The chair appointed H. D. Wood, L. F. Abell and G. Erickson, the committee to report at the next meeting.

A motion was carried requesting gentlemen reporting cases to the Society to present them in writing.

The following gentlemen were appointed delegates to the American Medical Association: H. D. Wood, Cowan, Erickson, Carr, Dancer, Abell and Gilbert. And to the State Medical Society: C. A. Whyte, Spooner, Haggerty, Chamberlain, D. W. C. Denny, Rochdebaugh, Knepper, Carr, Dayton, J. N. Denny, Cowan, Dancer.

On motion, Dr. Latta, of Goshen, was requested to read a paper at the next meeting, on some surgical subject of his own selection.

Dr. H. D. Wood moved that Professor McGraw, of Detroit, be requested to deliver the annual address. Adopted.

Dr. D. W. C. Denny offered the following resolution, which was adopted:

Resolved, That the chair appoint a committee of three, to report a new Constitution and By-Laws for adoption at our next meeting.

Drs. Erickson, Abell and Denny were appointed as said committee.

A committee was appointed consisting of one member from each county, to report at the next meeting upon the diseases prevailing in the counties of the Society during the last year. Drs. H. D. Wood, Chamberlain, D. W. C. Denny and C. A. Whyte, were appointed said committee.

The following committee, one member from each county, to examine applicants to study medicine, was appointed: H. D. Wood, Jared Spooner, D. W. C. Denny and C. A. Whyte. Each member of the committee to have power to select two gentlemen from his county to assist him in making examinations in cases that can not be postponed to a regular meeting.

Reporting cases was again declared in order. T. F. Wood reported a case.

Dr. Smith, of Orland, gave an interesting history of cerebro spinal meningitis, as it is now prevailing in his neighborhood.

Dr. Erickson read an essay on reporting cases.

The Society then proceeded to discuss the question: Can legislation be protective to the medical profession? Drs. D. W. C. Denny, H. D. Wood and T. F. Wood were the principal disputants—H. D. Wood in the negative.

T. F. Wood and P. W. Crum were appointed essayists for the next meeting. The subject for discussion will be the mechanical treatment of uterine diseases.

Adjourned to meet at Kendallville on the first Tuesday of June, 1874.

J. L. GILBERT, Sec'y.

Reviews.

THE LEGAL RELATIONS OF EMOTIONAL INSANITY—by E. Lloyd Howard, M. D., of Baltimore, Md. Extracted from the transactions of the American Medical Association. Collins, Printer, 705 Jayne Street, Philadelphia.

This is a good paper; we give copious extracts from it. The doctrine advocated has not only been in its most essential features the means entertained by us, but such as has within the progress of this Journal been often advocated.

“Dr. Carpenter says: ‘It is unquestionable that many criminal actions are committed under the irresistible dominance of some insane impulse, the individual being at the time perfectly aware of the evil nature of those actions, and of his amenableness to punishment for them.’ Speaking of the two forms together, he states: ‘There may, however, be no primary disorder of the intellectual faculties, and the insanity may essentially consist in a tendency to disordered *emotional* excitement, which affects the course of thought, and consequently of action, without disturbing the reasoning processes in any other way than by supplying wrong materials to them.’

“Though some medical writers refuse to admit the correctness of the definitions given, and a few even deny the proper existence of these forms of insanity, the denial, it seems to us, is based rather upon technical than practical grounds. The objection they make is, that ‘insanity is not confined *exclusively* to the emotional faculties,’ contending, that ‘the mind cannot be properly separated into such faculties as of the intellect, the emotions, and the will; but must be considered in its entirety;’ and that ‘no one part may be diseased with the others remaining in a perfectly healthy state.’ While this may, strictly speaking, be true, yet the terms are useful as specifying forms of insanity that possess certain prominent and characteristic features; and in this sense they are permitted by all late writers. All admit that there are cases in which the intellectual faculties and the will are but slightly affected, if at all, and where the *moral perceptions* are palpably disordered; and, again, those in which criminal impulses have suddenly, and without any special premonitions, occurred, and been

the occasion of homicide, suicide, etc., without any notable impairment of the intellectual faculties being apparent.

"It being impossible, then, to define insanity by any 'test symptoms,' each case should be examined by the jury *in itself*; and they must be left free to judge of the value of *all* facts in connection with it. This seems to be the tendency of our more recent rulings; and it is the more humane, more just, and proper course; and a great advance over the older methods—better calculated to do justice to the prisoner; if not to protect the community. But we cannot refrain from hazarding the opinion, that the ends of justice would be better subserved; the security of society more certain; and the rights of individuals more secure, if the laws—both statute, and those ordained by custom and sanctioned by previous rulings of the courts—exempting insane offenders from punishment, were repealed; leaving the jury to determine the guilt or innocence of the prisoner, *not* on the grounds of insanity, but from *all the facts*; considering in each case, where insanity is alleged, its value, if proven, as an element in forming an opinion as to the degree and extent of punishment!

"No doubt it will seem cruel, to many, to advocate the doctrine that insane persons should *ever* be made to suffer criminal punishment! But, we must remember, the law is not to take cognizance of the sufferings of the individual, so much as of the safety of the community. This is the prime object; to be secured at all cost; and mercy can only be considered, *as subordinated to this first requirement*.

"But, is it true that punishment, or the prospect of punishment, would have no good effect as applied to insane persons? Is it not a notorious fact that constantly, both in, and outside of, asylums, insane patients are governed by fear, and restrained through dread of punishment? Having seen that it is not at all uncommon for cases of emotional insanity—men clearly and undoubtedly insane—to be possessed of the ability to discriminate between right and wrong, and to have sufficiently clear intellectual perceptions of the nature and penalties of crime, could not some provision be made for controlling them through fear of punishment; while, at the same time, recognizing the fact of their insanity? Both as a mat-

ter of protection to the community, and of benefit to themselves, would it not be wise to apply to many cases of 'moral' and 'impulsive' insanity, the same restraining influences we find efficacious for *sane* criminally disposed persons?

"As an epidemic mania for suicide in young women was checked by a law ordering the bodies, of those so destroying themselves, to be exposed, naked, to the public view; so, we believe, *murder-maniacs might be greatly controlled by judicious laws.*

"It is not contended that no distinction should be made between sane, and insane criminals; or that each should be punished with a like severity. The only way, in our opinion, to practically reach the difficulty, is to render all criminals, whether insane or not, equally liable under the law; leaving the court, and jury free to determine the kind, and degree of punishment, in each individual case; taking into consideration all the features of the case; investigating the facts of the insanity, as part of the facts of the case, and as *palliative* circumstances only! Confinement in a penitentiary is not a more severe punishment, in reality, than in the cells of a mad-house; but, from being commonly regarded as *punitive*, the fear of it would exercise a more wholesome restraining influence over a large class of the 'partially insane.'

"The main objects of this paper have been to expose the fallacy of the law which holds that, 'the insane cannot commit *crime*.' It often happens that the medical witness must testify that a criminal is *insane*, and so secure an acquittal, while his opinion, that he should nevertheless be held amenable for his actions, cannot be received.

TINNITUS AURIUM, OR NOISES IN THE EAR—Lippincott & Co., Phila.

Certain questions are discussed in this short article, among which are those relating to "noises in the ear," held as causes of mental disturbance or producers of insanity; accumulations of cerumen, the elongation of the hairs of the ear, adhesive mucus on the membrana tympanum, foreign bodies in the Eustachian tubes, certain perturbing actions of the heart, disturbance of the cir-

culatation through nervous lesions, immoderate contractions of the tensor tympani muscle, are given as some of the direct causes of tinnitus aurium. A consideration, short and terse, of the therapea, closes the article.

CLINICAL LECTURES ON DISEASES OF THE NERVOUS SYSTEM—By William A. Hammond, M. D., Professor of Diseases of the Mind and Nervous System, in the University of the City of New York. Reported, edited, and the history of the cases, prepared with notes, by F. M. B. Cross, M. D., Assistant, etc. D. Appleton & Co., 549 Broadway, N. Y.

Among the numerous subjects here treated of "alternate cross hemiplegia," "aphasia," "facial paralysis," "cerebral hemorrhage," "progressive muscular atrophy," "epilepsy," "sciatica," and "organic infantile paralysis," we recognized as peculiarly well handled. Dr. Hammond, say what we will, is without doubt a man of energy, and has done incalculable service to scientific medicine. The "Quarrels of Doctors" that he has been engaged in must be settled upon one law, his labor and real worth upon another. No one who has taken interest in his "Nervous Diseases" should go without reading the present work.

ESSENTIALS OF THE PRINCIPLES AND PRACTICE OF MEDICINE—A Hand Book for Students and Practitioners. By Henry Hartshorne, A. M., M. D., Professor of Hygiene in the University of Pennsylvania, etc. Fourth Edition. Thoroughly revised, with one hundred illustrations. H. C. Lea, Phila. 1874.

This work has been before the profession long enough to be judged and approved, as one of, if not the best compendiums we have. Some new changes and additions have taken place, as will be seen by the following extract from the preface:

"The discussion of the pathological relation of tuberculi has not yet quite ended, the weight of authority that may well be cited against indiscriminate *stimulism* has increased; the occasional abstraction of blood in practice finds a somewhat larger number of advocates. The objections always urged in this work against the current theory concerning the exclusive propagation of

cholera by fecal contamination of drinking water has recently attained strength from Penthenkofer's opposition to that theory."

We commend the work as an essential to the practitioner and student.

CLINICAL LECTURES ON VARIOUS IMPORTANT DISEASES—

Being a Collection of the Clinical Lectures delivered in the Medical Wards of Moxey Hospital, Chicago. By Nathan S. Davis, A. M., M. D. Edited by Frank H. Davis, M. D. Second edition. H. C. Lea, Phila. Cathcart & Cleland, Indianapolis.

Those lectures are such as have appeared from time to time in the Medical Examiner. Of their value nothing can be said. Dr. Davis would not permit anything to be published as coming from him but such as would be sanctioned by the profession. The lectures embrace the subjects of continued, periodical and rheumatic fever, scarletina and rubeola, respiratory affections, pulmonary tuberculosis, diseases of the alimentary canal, uterine irritations, summer complaints of children, dropsy, cardiac diseases, neuralgia, affections of the brain, cutaneous diseases, mania-a-potu and pneumonia.

SURGICAL EMERGENCIES—Together with Emergencies attendant on Parturition and the treatment of Poisoning. A Manual for the use of general Practitioners. By Wm. Paul Swain, F. R. C. S., etc. Lindsay & Blakiston, Phila. Cathcart & Cleland, Indianapolis.

Injuries of the head, eye, mouth, pharynx, esophagus, larynx, chest, upper and lower extremities, pelvis and abdomen, are here treated of; also emergencies connected with parturition, poisoning, the antiseptic treatment, together with the necessary apparatus and dressing necessary in all such cases, fully described. A work of value.

THE PHILOSOPHY OF SPIRITUALISM—and the Pathology and treatment of Medio-mania. Two lectures by F. R. Marvin, M. D., Prof. of Psychological Medical Jurisprudence, in the New York Free Medical College for Women. Read before the New York Literary Club. Asa K. Butts & Co., Publishers, New York; Cathcart & Cleland, Indianapolis.

The author of this work strives to prove more by the rules of logics and the authority of Dr. Maudsly, than by other means that 1st. soul and spirit according to spiritualists doctrine are material, and 2d. that they are in fact a force or forces, that immortality attaches to them, but an immortality such as is known alike by heat, light, electricity or any other *force* outside of matter, it is not either of those, yet it is not matter. As to the theory and speculation he wanders, as many better men have done in the ways of an uncertain way—the absolute unknowable, and it is only when he comes to the pathology and treatment of medio-mania, that practical work commences, of course as the name indicates he classes such with maniacs, not the wild or imbecil nor yet the well recognized “moral” aberation, but an abnormalty based upon physical defect in some parts of the system, notable in the uterus, effecting the mind through the brain, the author places it along side of lycomania, dancing mania, or even with enthusiasm the violent perturbations of the intellect as in anger, is but a member of the same group, a kind of border line between the average stable and the unstabled mortality that exists. All inquiries as to what is the soul, whether by the fool or philosophers has ceased to be of value to men of common sense.

A PRACTICAL TREATISE ON DISEASES OF WOMEN,—by T Gailard Thomas, M. D., Prof. of Obstetrics and Diseases of Women and Children, in the College of Physicians and Surgeons, New York,. Fourth edition thoroughly revised with 186 illustrations. H. C. Lea, Philadelphia, Cathcart & Cleland, Indianapolis.

This work in its former editions is so well known to the profession that it is unnecessary to say any thing regarding it. It is, and will remain for years, a standard authority upon the subjects treated.

THE BREATH AND THE DISEASES WHICH GIVES IT A FETID ODOR—by Joseph W. Howe, M. D., author of “Emergencies,” etc.

The author says truly that "marked changes in the breath have received little consideration from the profession," he considers here "fetid odors from emotions," from bad teeth and ulcers of the mouth, from catarrhal affections, from minerals and congenital bad breath.

INFANT DIET—by A. Jacobi, M. D., clinical Prof. of Diseases of Children, College of Physicians and Surgeons, New York. Revised enlarged and adopted to popular uses, by Marry Putnam Jacobi, M. D., G. P. Putnam's Sons, Publishers, New York, Cathcart & Cleland, Indianapolis.

This little work, which is "adopted to popular use," is sufficiently scientific, so much so that physicians can't complain, and the laymen may need a dictionary.

ELECTRO-THERAPEUTICS—A condensed manual of Medical Electricity, by D. F. Lincoln, M. D., Physician to the Department of Diseases of the Nervous System, Boston Dispensary. H. C. Lea, Philadelphia.

Physical laws, modes of generating electricity, physiological laws, diagnosis by means of, methods of applying electricity, are here treated of, together with a description of the apparatus, etc.

THE PHYSICIAN'S VISITING LIST—Twenty-Fourth Year of its Publication. Lindsay & Blakiston, Phila. Cathcart & Cleland, Indianapolis.

This well known list contains an almanac, table of signs, Marshall Hall's Ready Method, poisons and antidotes, table for calculating period of utero-gestation. After the list proper comes "Memoranda."

"SHADOWS FROM THE WALLS OF DEATH."—Facts and inferences prefacing a Book of Specimens of Arsenical Wall Paper. Gathered by R. C. Kedzie, member of the Michigan State Board of Health.

This is an energetic protest against wall paper of any kind, and especially where there is any of the green pigment of aceto-arsenite of copper contained. The Doctor is doing good work in "preventive medicine."

THE MEDICAL USE OF ALCOHOL.—by James Edmunds, M. D., Member of the Royal College of Physicians of London; Member of the Loyal College of Surgeons of London; Senior Physician to the London Temperance Hospital; Late Senior Physician to the British Lying-in Hospital. J. N. Stearns, Publishing Agent, No. 58 Reade Street, New York.

The three Lectures are as follows: 1st. The Medical use of Alcohol. 2d. Stimulants for women and nursing mothers. 3d. The dietetic use of Alcohol. The remarks of Dr. Willard Parker are also published in full, bearing upon this question.

CROUP, IN ITS RELATION TO TRACHEOTOMY—By T. Salis Cohen, M. D., Professor in Jefferson Medical College. Lindsey & Blakiston, Phila. Cathcart & Cleland, Indianapolis.

This is an exhaustive treatise, giving the history of the operation in connection with croup, the best mode of procedure, together with the results, etc.

ARCHIVES OF DERMATOLOGY—A Quarterly Journal of Skin and Venereal Diseases. Edited by Duncan Buckley, A. M., M. D. G. P. Putnam & Son, 308 Fourth Avenue, New York.

The powers of Dr. Buckley as a writer and general worker is known to the profession. This new periodical will, without doubt, be well received.

ON DEAF MUTISM, AND THE METHOD OF EDUCATING THE DEAF AND DUMB.—By Lawrence Trumbull, M. D., of Howarp Aospital, Phila.

This is a short history of the attempts to teach the deaf mutes, with some practical suggestions of good import.

CONSTITUTION, BY-LAWS AND CODE OF ETHICS OF THE INDIANAPOLIS PHARMACEUTICAL ASSOCIATION—With a List of Officers and Members. Organized July, 1874.

We are pleased to see this movement amongst our pharmaceutical friends. May they persevere and “bring forth meats,” etc.

THE NEW YORK OBSERVER—37 Park Row, New York. Terms \$3.15.

Editorial.

HOW ARE THE SAVANS FALLEN.—The following report speaks for itself. If it is true, the work is unworthy of any attention. The Brown spoken of is, we believe, Dr. R. T. Brown, of Indianapolis, the gentleman who knows all about produce, coal, and the effects of bad whiskey, a little of everything, we have no doubt he is good for something, notwithstanding the adverse criticism of Bro. Field. “To C. A. DUDLEY, Esq., *President of the School Board of the City of Des Moines, Iowa* :

‘DEAR SIR: Having been requested to examine Brown’s Physiology, by the agent for the sale of it, I subsequently referred him to a few of its features which, as it seemed to me, should exclude it as a text-book from schools. And it has occurred to me that I might, with propriety, also submit a few questions for your examination. In doing so I have no other motive than the contribution of a service, such as it be, for the good of our common schools, with the best feelings toward all concerned, and complete immunity from every consideration of personal interest.

‘The mechanical execution of the book is commendable. It is printed in clear type, and bound as substantially as it is tastefully. But when a Monograph on the subject of Physiology and Hygiene is so meager in substance as to omit many topics of first importance in every day life; or in which less than two and one-half pages are given to the important subject of *clothing*; or in which no allusion whatever is made to the distribution of one-half of the cranial nerves; or in which there is not to be found a single word on the Hygiene of the eye, nor of any other organ of special sense, there should be but little space given to vagueness of expression, or inaccuracy of statement.

Respectfully, A. G. FIELD, M. D., Committee on Physiology and Hygiene as a branch of Popular Educa-

tion, State Medical Society of Iowa. Also a member of Committee on State Medicine and Public Hygiene, National Medical Association.'

FROM and after the first of January, 1875, postage upon all regular publications is required to be pre paid—we shall have, therefore, to make some provisions for such emergencies. The postage per year upon each copy of this Journal will be about fifteen cents, and this amount we shall have to request each subscriber to remit us, before sending the Journal. We have never made any calculations as to postage heretofore, as the subscriber paid the same upon receiving his copy. If we were receiving a large price for our Monthly we should say nothing about it, but cannot afford, at \$1.50, to supply the Journal and pay postage. Each subscriber will, therefore, please remit to us before the first of January, 1875, fifteen cents for the purpose mentioned.

Miscellaneous.

INFANT MORTALITY IN CITIES.

Paper Read before the National Health Association.

BY HENRY HARTSHORNE, M. D., OF PHILADELPHIA.

It is, in my belief, a justifiable opinion that amongst those born with a normal constitution, and under entirely favorable circumstances, the mortality during infancy and childhood ought to be less than at any other period of life. Yet it is a fact familiar to every one, that the reverse is the case in very many localities; most notably in large cities. In France, according to Bouchut, one-sixth of all born die in the first year of life (Bertillion recently puts it in at one-fifth;) in Sweeden and Finland, one-fifth; in Berlin, Prussia, one-third. Nor is the proportion very much less in some parts of

England and this country. Before the war it was worst of all in New Orleans. In 1872, 1 death in $4\frac{1}{2}$ occurred under one year of age in that city.

In New York, in 1868, as reported by the Metropolitan Board of Health, more than one-fourth of the total mortality was of children under one year of age; while in *certain districts* of that city 80 per cent. of the whole mortality occurred during childhood. In 1872 considerably more than one in four of the deaths in New York occurred in children one year old or under. Philadelphia suffered last year (1873) a total mortality of 16,736 deaths at all ages, of which 5,121 were under one year of age; and 7,151, about 1 in $2\frac{1}{3}$ of all deaths, under five years. Yet this was below the infantile mortality of our city for the four previous years. Boston, in ten years (1861-71) lost within the first year in $5\frac{1}{4}$ of all born. San Francisco in 1871, had 1 death under one year, or about $4\frac{1}{3}$ of all deaths. Looking back through considerable periods, we find that in 1810, in New York one-half of all deaths took place in persons twenty-four years old or upwards; in 1857 one-half of the deaths were of children not more than two years old. In Philadelphia, in 1807, half of the deaths occurred after twenty-four years of age; in 1856 one-half were of children less than four years old. These last figures show an *increase* of mortality, relative at least, amongst children. Dr. Farr has shown that in London it has been otherwise. About the middle of the eighteenth century 75 per cent. of the deaths were of children under five years of age; at the beginning of the nineteenth century about 50 per cent.; and now about 29 per cent. have fallen within the same period of life. The rate is declining somewhat during the last few years in Philadelphia and New York. From 1860 to 1872, the deaths under five years were 44.78 per cent., and under one year 27.25 per cent., of the total mortality of Philadelphia.

In England, Dr. Farr proves by his reports to the Registrar-General, that the diseases of childhood are *twice*

as fatal in towns as in the country. Other interesting points are, as to the season of greatest mortality of children in our great cities, and the nature of the most destructive maladies. As Dr. Elisha Harris has remarked, summer is the *tentator infantum* in New York. In the summer quarter of 1868 in that city, the whole number of deaths being somewhat less than 8,700, of these nearly 5,600 were of children under 5 years of age; almost all being from what are called "diarrhœal diseases." During one hot week of the summer of 1870, three-fifths of the aggregate mortality in New York (645 deaths out of 1,048) occurred in children under five years; 400 deaths being from cholera infantum alone. In the hottest week of 1872, in Philadelphia, 852 deaths occurred; of which 497 were of infants under two years, 383 under one year; mostly from diarrhœal disorders. The week previous to this gave 1,569 for the total mortality of New York, increased largely by the same mode of causation; such an aggregate of deaths probably having never been exceeded in that city; as the former (852) never has been in Philadelphia.

But the excessive mortality of early life is by no means accounted for by seasonal influences alone; other causes, also, are of great importance.

Syphilis has been credited with a very large infantile mortality. Dr. Sturgis, in the *American Journal of Syphilography*, is quoted by Prof. Gross—[Address on Surgery, Trans. of Am. Md. Association, 1874]—as asserting that to it are due eighty per cent. of the deaths of children under five years of age in New York and Philadelphia. I cannot believe this to be an entirely correct statement of either city; certainly it is not so of the last named. Still, as a contributing cause, no doubt syphilitic taint of constitution, along with many instances of destructive congenital syphilis, has large influence.

That syphilis is in any sense or manner the parent of scrofula does not appear to me to be at all probable. The two are, under observation, quite distinct diatheses,

though combined in certain instances ; and it is to be inferred that they have always been different in origin, and nature.

I have spoken, amongst the causes of early mortality acting through parents, of excess of the nervous temperament and deficiency of organic development in women. It might be safer to say in men and women. Both run to brains and nerve, too much, in this country. Animal functions are less readily subordinated to the intellectual and moral nature, but all these rob too largely the vegetative, nutritive, and reproductive systems. This I believe to be the secret of the lessened and lessening number of births of American children of native parents, compared with those of foreign parentage. Much more remains to be investigated upon this subject, notwithstanding the elaborate inquiries of Dr. Allen, Dr. J. Stockton Hough and others. In Massachusetts, at least, the *mortality* of infancy is greatest amongst the children of foreigners—[Massachusetts State Board of Health Report, 1873, p. 215.]

Post-natal causes of infantile mortality differ in different *climates*. Northern cities lose many infants in the winter by pneumonia, capillary bronchitis, and croup—under the exposure to cold so often connected with poverty and neglect. Dr. Farr has shown that in London the degree to which the thermometer descends in December, January, or February, determines to a great extent the mortality of the winter. Sir Thomas Watson asserts the mortality in England to be always larger in winter than in summer ; unless under the influence of occasional epidemics. This last observation, however, will not, as has already been shown, hold true of our large cities in this country.

Every zymotic disease is rendered more fatal, if not more prevalent, by foul air. Any sanitarian might designate, in any city, what wards, blocks, courts, alleys, and houses will always afford the largest number of deaths from scarlet fever, measles, and cholera infantum,

from year to year, and from diptheria, cerebro-spinal fever, typhus, or cholera Asiatica, when either of these prevails.

Errors in infantile diet may be considered briefly as they occur: First when the child is suckled, in part or altogether, by the mother or a substitute; and, second, when it is fed entirely by hand or with the bottle.

The same sort of evil is intensified fearfully in foundling hospitals, whose death-rate has always been immense. During the first year of the New York City Foundling Hospital (1869-70) 55 per cent. of all admitted to it died. This was comparatively moderate. In the Dublin Foundling Hospital, during the last century, according to Sir James Simpson, of 12,000 infants received, only 135 lived. An improvement upon this was certainly witnessed when, from 1795 to 1826, of 52,000 admitted, only 41,000, about four-fifths died.

Watering milk has become a by-word, and not without reason. Prof. Chandler reported officially a few years ago, that, on the average in New York, one quart of water is added to every four quarts of milk. Prof. J. F. Babcock, of Boston, found that ten out of twelve samples of milk served in that city were adulterated with water, from ten to twenty-five per cent. I believe it to be better in this city, but I cannot say how much. Moreover, I consider that medical opinion has undergone some improvement, in late years, in enjoining less considerable intentional additions of water to the milk giving to young infants. Dr. Hiram Corson, of Norristown Pennsylvania, has written forcibly on this subject. It appears to me that Dr. A. Jacobi's recommendation, to prepare for babies six months old, half barley water and half skimmed milk, falls short of allowing sufficient strength of nourishment. Another advice of the same distinguished authority—[*Infant Diet*, by Dr. A. Jacobi, 1873] must receive my positive dissent. While fully convinced of the occasional value of alcoholic stimulation in prostration from disease in children as well as

in adults, it does not seem to me a sound hygienic precept to give to an infant not sick, with water used as drink, "a drachm or two, according to age, and divided into small doses, of brandy or whisky, in the course of twenty-four hours." [1 *bid.* p. 47.] The unsuitableness of starch foods for infants under five or six months of age, and their insufficiency alone at any period, are matters now well understood, at least in the medical profession. In a word, no food for infants, be it Liebig's or that of any one else, can substitute good fresh milk.

To meet ante-natal deleterious causes connected with parentage we must look chiefly to popular education, moral reform, and sanitary police. Under the last-named should be included inspection and sanitary improvement of wellings and localities in cities. Against post-natal causes of infagtile mortality similar measures will be of great importance. Means should be taken to diffuse information amongst all classes, and especially the poor, concerning food (most of all the need of freshness and purity in that which is given to children,) cleanliness, and ventillation. Holly-tree Inns and temperance coffee houses ought to be established, to give cheer and comfort without inebriation, in every quarter of every city. Children's excursions in hot weather should be, as they now are, made the generous duty of the richer, and the life-giving enjoyment of the poorer class.

Yet more than all this is needed. Dr. J. M. Toner and myself have incurred, perhaps, the charge of being impracticable, in proposing that summer camps, for mothers with young infants, during hot weather, should be provided outside of every large city. For the first year, my estimate is that this might cost from \$75,000 to \$100,000 for Philadelphia; less in succeeding years. There is no difficulty about it except that of procuring the money. Is it worth while? The answer to this depends upon our estimate of the value of human life.

Obituary.

G. W. PATRICK.

A called meeting of the Terre Haute Medical Society was held October 29th to take action in regard to the death of Dr. George W. Patrick. After the usual preliminaries of organization, the President, Dr. Read, announced to the members the object of the meeting, and added a tribute to the life and character of the deceased.

Following the address all the members expressed personally their sense of the loss which the profession and community have experienced, and adopted, without dissent, the following resolutions:

WHEREAS, Death has suddenly invaded our circle, and removed from us our esteemed professional brother, Dr. George W. Patrick, who for many years was actively and creditably engaged in the practice of medicine in this city, leaving it only in consequence of ill-health; and

WHEREAS, It is eminently proper to place on record our highest estimate of his personal character and professional worth; therefore

Resolved, That this Society received with sincere sorrow the intelligence of the sudden death of Dr. George W. Patrick, in whom the profession had a worthy member, an ardent admirer and a devoted friend.

Resolved, That his charity, industry, unswerving integrity and Christian graces were qualities which characterized his life, and rendered it worthy of our imitation.

Resolved, That as a token of our unfeigned regard we will in a body attend his remains to their last resting place.

Resolved, That we hereby extend to the bereaved wife and daughter of the departed our heartfelt sympathy.

Resolved, That the Secretary be instructed to furnish a copy of these proceedings to the family of the deceased, and also to the city press for publication.

EZRA READ, *President*.

J. P. WORRELL, *Secretary*.

Dr. Hays

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INTRODUCTORY ADDRESS

AT THE

*Opening Exercises of the College of Physicians and Surgeons
of Indiana.*

BY EZRA REED, M. D., TERRE HAUTE, PRESIDENT BOARD OF
TRUSTEES.

Ladies and Gentlemen, Professors and Students—We have come here to-night to inaugurate the beginning of the “College of Physicians and Surgeons of Indiana,” and to give to it our God speed and pæans to honor and usefulness.

Its foundation has already been laid, quietly and substantially, and its whole machinery and appointments well provided, and it is for us to launch it upon the sea of life and trust to an intelligent age for support. We have come here to consecrate and dedicate it to science, to give to it our hopes and blessings for an enlightened career in teaching, and, to see to it, that the omens and

auspices upon its threshold of existence give back to us words of hope.

We have come to open the book of the science of medicine, and to invite to its golden pages the student's reflection and attention. We have come with an offering, the healing art, which has been alike necessary to all nations and all communities. In some sense, and in some degree it has been known in every age, because disease, with attendant pain and suffering, implies attention to means of relief, and remedies of real or fancied value have consequently attracted attention. Every organized and living structure contains within its ultimate cells causes of dissolution, and no vital organization exists without subjection to these laws, consequently our very existence implies perils from disease in all conditions of life, and the ingenuity of man has not been slow to find means of relief.

It has been written by the scholarly Pliny that no nation can exist without some knowledge of medicine, and in all the newly discovered lands since he so wrote—in the islands of the seas, and on the great continents of North and South America, some knowledge of healing means has been obtained among the natives who, without a written language, transmitted by oral tradition the secrets and practices of the healing art from generation to generation. It was so in the Egyptian eras. It was so in the days of Abraham, Isaac and Jacob, buried, however, in the superstitious arcana of the sacredotal orders, and by them perpetuated and preserved.

It was potential from the cunning devices of solemnity and grave taciturnity which inspired confidence and awe alike with the ignorant. It was a secret and hidden art strictly confined to the priestly corporation, and was shielded, protected and managed through oracular mysteries.

It was so when Moses smote the rock, learned himself in all the Egyptian priestly rites. It was so in

the Chinese Hoamtic dynasty, nearly three thousand years before the birth of Christ. It was so two hundred years before the kingdom of Priam fell, when Iphiclus was strengthened by remedies, and the daughters of Proctus were cured by hellebore. It was so when the Phœnicians and Tyrians were the common carriers of the world upon the high seas. It was so when the woes of Greece began in the tents of Achilles and Agamemnon. It was so when Troy fell, and the sons of Esculapius were surgeons in the armies of the Greeks. It was so when the God-like Homer wrote the Iliad, to inspire and refine and enlighten every succeeding age—the model of perfection, above all criticism and alone in its harmonious beauty. It was so for seven hundred years after those great armies had re-embarked upon the Ægean sea for their native land.

In fine, it was a hidden and priestly and mysterious art as long as it was controlled by the Esculapian family for seven hundred years after the war referred to, and had been shrouded in a like manner in all the long ages before in Egypt, in China, in India, in Greece, and in all the known kingdoms of the world.

Each nation had traditionary ideas of the invention or discovery of the healing art, and Hermis, with the Egyptians; Zoroastres, with the Chaldeans; Nohanti, with the Chinese, received the blind adoration of their ignorant and superstitious followers.

The dark curtains of ignorance shut out the light of science, and rites and ceremonies and incantations were the cunning appliances to the sick.

But a time at length came when men reasoned before they believed; when the philosophers took atom by atom, idea by idea, and viewed them in their nakedness, made them intelligent, tangible, and useful. They stripped off the priestly robes, broke open the doors of the idolator's temples and let in the light of science.

The true historical beginning of the science of medi-

cine was reserved for the splendid age of Pericles, an age of philosophers, of poets, historians and statesmen, an age that in all the long centuries since has stood pre-eminent in the annals of history. It would have been so for the God-like saying alone of its great prime minister, when, at his death bed, his friends recounted his military and civic achievements, he responded, "Not for these, not for these do I merit praise, but for that more glorious than all—It is that no citizen of Athens has been obliged to put on mourning on my account." It was the age of Herodotus, of Thucydides, of Euripedes, of Plato, and of the great father of medicine, the immortal Hippocrates then, and now *facile princeps medicorum*."

It was in this brilliant age that the science of medicine was born into existence, and of all the bright stars then rising to illumine the world, Hippocrates was not the least. By his genius and learning, and moral heroism, he tore away the old structure and successfully substituted the new. He received medicine as an art and made it a science. He laid the foundation upon which for nearly two thousand three hundred years the profession of medicine has been building, and upon that venerable and colossal structure, we come now to add our own labor. Upon that structure we shall impose the College of Physicians and Surgeons, and it becomes us to see to it that of all the beautiful and harmonious additions, ours shall not be the least comly; and when long years in the future it shall be finished, our own shall command the blessings of those who behold our work.

We are especially drawn to the age of Hippocrates, because it is one of our great professional land marks. It was then that darkness terminated and light began. It was then that reason was enthroned and the mockeries of priestly cunning dispelled. It was then that the smitten rock poured out the pure waters of know-

ledge at the bidding our great master, and at which we and every age since have slaked our thirst, and from which the whole world has since been blessed. And since him no physician has ever obtained a homage so devoted, so constant and so universal, and to no eye can the immortal line of Virgil so jointly apply, "*ab intigro sæclorum nascitue ordo.*"

For nearly eighteen hundred years a knowledge of his aphorisms was the only test of professional fitness, and no medical library is now complete without his works. In anatomy alone, of all the branches of medicine, he was most deficient, for the religion of the Greeks interposed its superstitious barriers in handling or dissecting the dead, and there have been Greeks in every age since, and you will find them here to paralyse your undertaking, and, in this relation, every earnest teacher and student may properly say "*timeo danaos.*" It was only last week that a priestly Greek with an army of Greek constables entered one of the Eastern Colleges of medical learning and arrested the entire corps of professors and students, in search of a dead body anointed for its entrance into Heaven; and the same army of officials would arrest you, incarcerate you, and impoverish you for a surgical mistake consequent upon ignorance of this very anatomy that you are liable to arrest for teaching and learning.

"*Optimi consultous morteci.*" These laws are a disgrace to our statute books—a burning and shameful disgrace to the age in which we live—a sad commentary upon our intelligence, and a sorry contrast with the enlightened understanding and edicts, and laws of that illustrious line of Macedenian Princes who established the great library of Alexandria, established schools of philosophy, of medicine and mathematics, and gathered the learned men of the world to teach, who were generously supported and encouraged by the government. To that long line of illustrious princes the

science of medicine, as well as others, is more indebted than to all other potentates who have ever ruled upon earth. They fully comprehended the power and glory of intelligence and of learning. Philip made Aristotle the instructor of his son Alexander, and enriched him with gifts and a great natural museum. The son, not ungrateful, established the great Alexandrian library, and the long line of Ptolemies fostered and cherished it, and made that city the centralized seat of learning for the world, to which all then went for instructions and improvement—to which we go as the recognized fountain of our science—to which we go for the very geometry, now used in our schools—to which we go for the septuagint translation of the Bible.

It is not the land, nor the mountains, nor the seas that make a government great and influential, they are but the elements of production and commerce, but it is the impress of the genius and learning of the citizens. Strip Greece of her orators, her poets, her philosophers, her statesmen and historians, and that land of ideality and genius would be as barren as its white cliffs of marble. So of Rome, so of France, and of England and of our own country. A few bright stars stricken out from each age and it becomes nameless and shadowed and dead to all usefulness.

It is to the enterprise of the citizens of Indianapolis that it owes its enviable reputation. It is known from the fame of a few men, prominent in professional and business pursuits, and each year will widen and enlarge this character from association with the living and dead.

But I have digressed from that city which shed from its schools of learning bright streams of light for a thousand years to all the world, and even to the great city of Rome, itself so resplendent in the majesty of empire and brilliancy of letters. It will not, I trust, be unbecoming in this address to give you in his own words, the language of an eminent historian upon the subject

of the library and the schools: "Ptolomy Sotes was not contented with collecting, at a great expense, an enormous quantity of books; he felt also the necessity of having order and choice in his collection. To effect this he called around him men the most renowned for their erudition and gave them residences near the library, and created a fund for their maintenance. Some were charged with the classification, collection and annotation of the manuscripts; and the copies that underwent this labor of revisal were then entered in the catalogue. Other savans equally at the expense of the State, occupied themselves with the investigations and studies of their taste, being confined to no particular task, only they were required to meet together on certain days to deliver lectures and discuss various subjects. The king himself sometimes took a part in these re-unions, by proposing difficult questions for solution, and taking part in the discussions.

Those who succeeded best received public eulogies and rewards proportionate to the merits of their compositions. The science of medicine stood fixed in this school, and eclipsed those of Cridas, Cos and Pergamos. It excelled all others because the public—the voters—authorized the dissection of the human body, and, in the labors of dissection, the princes themselves participated, so anxious were they to penetrate the secrets of nature and life.

When, since, has anatomy been so fostered and protected? When, since, has it been made honorable by royal favor? In all Rome, when it was a city of several millions of inhabitants, there was not a school of anatomy at that time, and its scholars had to avail themselves of this Greece-Egyptian School. It had an active, living influence upon the progress of medicine, until the dissolution and destruction of the Roman Empire. Its munificently gathered books of wisdom had, in the mad career of war, been committed to the flames and par-

tially replaced by that patroness of learning, Cleopatra, herself so learned and of such an unhappy end. Against all these it partially struggled and lived, but in the end was entirely consumed by the torch of superstitious and religious zealots, and the pall of darkness again covered the earth and the gathered lights of ages was extinguished.

The Arabs gathered up the fragments of the Greeks, and preserved them through the dark ages, and gave them back at the dawning restoration of knowledge, improved and embellished by the learning of Rhazes, Avicenna and Albucasis.

Especially did they improve our knowledge of eruptive fevers and of chemistry, and to the *materia medica* added remedies of such value that they are at this day in constant requisition by the profession. But few additions beyond those mentioned were made by the Arabian Physicians in the many hundred years that they offered an asylum and protection for medical writings and learning. But for this they have merited the thanks of a grateful world, else in the vandal tread of sweeping, burning armies, we should have lost all that gave us a starting point in the future—Aristotle, Hippocrates, Celsus and Galen.

From the middle of the seventh, that of the destruction of the Alexandrian library, to the middle of the fifteenth century, medical science was equally paralyzed with all others, and was confined to the Arabs in the East, and the churches and monasteries in the West. Those who had learning were engaged in religious controversies, and only held and used medicine as a means of church strength and influence. Mendicant armies of crusaders swarmed to the East along the Mediterranean Sea, and were alone serviceable to the world for the necessity they imposed for hospitals for rest and care for their wearied and sick vagrant bodies.

In these long centuries of religious darkness, but now

and then did men of genius dare give utterance to their thoughts, and then at the peril of their liberty and lives. Intolerance crushed out of existence freedom of thought, and subsequently burned at the stake those dissenting to priestly creeds. Schools of medicine were established in the thirteenth century at Salerno, Bologna, Padua, Naples, Paris, Montpellier, Toulense, Valencea, Tortora and Oxford, but no substantial improvement was made to advance medicine until the world was made bright by the discoveries of Guttenberg, Faust and Shaeffer. Dissections had been made at Bologna an hundred years before that time to a limited and partial extent, and only became generally taught toward the close of the fifteenth century, first in the universities of Italy, and subsequently in Paris and England.

From the discovery of printing, the world took another long stride to advancement in science and letters and general learning.

Mankind thirsted after knowledge, and the most learned men were engaged in bringing to light the beautiful literature of the Romans and Greeks, and their philosophy and their science. They passed the dark and barren ages of religious superstition, and back to the untrammelled thoughts of the pagan world, which have given us letters, which have given us architecture, which have given us the chiseled marble of beauty, which have given us geometry in all its perfection, and the screw and the spindle and distaff, and so much in short, that no one life could recite them.

With this new and mighty impulse to general knowledge, our own science kept apace and Hippocrates and Galen and Celsus were printed and studied. Anatomy was encouraged to a precedence before unknown, and surgery had consequently claims to a first rank.

I shall not attempt to recite the brilliant discoveries in medicine since the introduction of printing, for I am admonished that the time allotted is too short, and your

own patience would become wearied and exhausted before I had crossed the threshold. I need only mention a few of the prominent men who have given lustre and progress to medicine in the era referred to, and among these are Pare, Condillac, Stahl, Barthez, Pinel, Boyer, Louis, Baglioi, Willis, Sylvias, Desault, Chopart, Debois, Hoffman, Bœahave, Sydenham, Cullen, Brown, Pott, Monroe, Cooper, the Hunters and Bell. In our own country, Rush, Goodman, Shippen, Post, Warren, Mott, Drake, Gross, Dudley, Eberly and a long line of worthies not mentioned, will compare favorably with any of their brilliant predecessors in learning, and in their substantial contributions to the science of medicine. These men have made the profession of medicine honorable, and have placed it where it of right belongs, first in learning, first in usefulness and in its warm sympathy and charity for human suffering.

It is no disparagement to the learned profession of law, to say that ours is prominent, because it deals directly with human life and our very existence; and as much more valuable as life is than property, to that extent is the profession of medicine of higher consideration than that of the law. The physician is with us at our first and last breath, through all the paths of life, to comfort and preserve, and to guide through the pestilence sickness and death.

The blessings of medicine to mankind will find no language adequate to describe. It has stayed the pestilence and made it impotent at the foot of science, it has lengthened out the span of human life, and dulled the scythe of death. If in the century passed, it has diminished mortality an hundred per cent., what shall not our expectations reach in the next, with the rapid progress we are now making? With newly developed diseases consequent upon the quickened activity of commerce, and all other pursuits of life, we shall be called upon to provide the means of arrest—and we shall provide them. I believe in the

certainty of medicine, not less than the exact sciences, when directed by the skilled and the intelligent, and I trust to the perfection of human thought, in attaining this end beyond a doubt. To widen, then, the usefulness of our profession, by giving a higher standard of instruction is the object known to me, of establishing the College of Physicians and Surgeons. We have no friends to reward, and no enemies to punish in the management of this school, and it shall be liberal in the widest sense in all relations to the student, to the profession and to community.

I shall not, to this learned body of professors, advise as to the manner in which they shall teach and manage their own affairs. Their exalted professional standing is our highest guarantee for the success which awaits them. When they excel others in instructing in their respective chairs, they will have the students to teach. It is the only true method of success in every pursuit of of life. Do your business better than your neighbor, and you will have it to do; do your own thinking, and do it in your own way, do it fearlessly and do it radically, do it freely, boldly and intelligently, and the Gods will foster and aid you. "*Non curvis homini continget adire coronthure*," are words which shall be inscribed upon these walls. It is not to all to enter Corinth, for the passage is narrow and dangerous, and the timid and unskilled are wrecked upon its rocks.

In the name of the curators of this College, in the name of the Physicians of Indiana, in the name of the citizens of Indianapolis, in the name of science and of humanity, I welcome each and all those distinguished professors to the chairs to which they have been respectively assigned, and our hopes and our blessing shall be with you to encourage and aid in building up a great school of medicine that shall throw out its flood of light to this and to every generation to come.

ECLAMPSIA.

BY W. HOBBS, M. D., KNIGHTSTOWN, IND.

Under the name Eclampsia, are grouped certain epileptoid affections which deserve our most careful study. The term Eclampsia, as thus employed, is a misnomer. It means a flash, or sudden blaze of light, one among the common sensory *aura* of epileptiform convulsions, but which is perhaps, quite as often absent as present in the morbid phenomena to which the term is applied as a distinguishing name. Besides this, the illusion which is made to characterize the disease, is quite often observed in similar relation, in disturbed conditions of nervous and muscular function to which the term eclampsia is never given. This error in nomenclature shows the folly of naming an affection from a single symptom, and especially when that is not strictly pathognomonic.

By the term eclampsia, or eclampsy, it is now understood that we designate the epileptiform convulsions which occur in pregnant and parturiant women, the reflex convulsions which are so frequent in infancy and children, and all others of this character whose causes and occurrence are accidental and ephemeral.

The phenomena of eclampsia cannot be separated from epilepsy. There is no description or analysis of the paroxysm which does not report the phenomena epilepsy. A well formed paroxysm of eclampsia will be found the type of the *haut mal* of the French. The study of this affection will be found the study of epilepsy produced by causes whose existence or combination are accidental or ephemeral, as distinguished from epilepsy proper, when the causes are constant in their operations, and the paroxysms recur with a certain degree of regularity. Hence, the study of eclampsia is the study of epilepsy, and cannot be separated from it, and while I do not in this paper propose to discuss epilepsy in general, there is no access to the subject before us but by way of epilepsy.

We must look to the nervous system for the cause, either directly or indirectly. Of all morbid phenomena of motion, sense and intelligence, all of which are involved in a paroxysm of epilepsy or eclampsia, and which make up the paroxysm in all its parts, every element of the seizure points directly to the cerebro-spinal centres for solution. The perverted sensibility of the *aura*, the loss of sensibility and consciousness, and the coma in the later stages, point to the sensory ganglia; the spasm and convulsive movements to the spinal cord; and the aberation of mind which precede, accompany, and follow the paroxysm to the cerebral hemispheres.

What we have learned of the formation of these several parts would seem to make it easy to solve the problem of an epileptic or epileptoid convulsion. But strange as it may seem, pathological anatomy throws little if any light upon the subject. In a very large number of those who have died of epilepsy and eclampsia, about all the cadaver has shown us was the effects, not the cause of the convulsions.

When preceding manifest lesions of the nervous centres have been found, they were evidently but secondary in the chain of causation. The so-called centric causes of epilepsy are quite as often discovered disassociated, as associated with the disease. The same may be said of the conditions in the periphery, which by sympathy, or reflex action, are thought to produce eclampsia. Dentition, intestinal wounds, eruptive fevers, &c., which in children are so often attended by convulsions, and the pregnant and puerperal state in women, by puerperal eclampsia, are more often observed without, than with such accompaniments. There is no demonstrated pathological state or condition of centre or circumference to which we can refer as a sufficient cause of these affections, but the several conditions in which they arise are but secondary in the chain of causation.

We are taught not only by modern, but also by an-

cient writers upon epilepsy, that there exists a peculiar molecular state or condition of the nervous centres or system in all convulsions of this class, which is a condition precedent to their appearance, and which is the predisposing cause. It is a state which the knife cannot raise to view, nor the glass discover, and which is altogether beyond any means of positive demonstration yet known to us. Where this peculiar molecular or cell state exists, either by accident or descent, central irritations, pathological conditions, or peripheral impressions, by direct or reflex action, may excite these paroxysmal phenomena, while the same causes acting upon a healthy nervous system, would be followed by no such results. These latter conditions must, therefore, take the place of exciting causes.

The causes of convulsions are sometimes conveniently arranged into two groups, viz: centric and eccentric. The first of these includes such as act directly upon the nervous centres, as tumors of the brain and cord exostosis of their walls, spiculæ of the bone, inflammatory action and its results, poisonous agents floating in the blood; while the second embraces the irritations impressed upon distant parts which are transmitted to the centres by the different nerve trunks—among these are intestinal irritations, the exanthematous fevers, the transit of the child during parturition, &c. These peripheral impressions after transmission to the cerebro-spinal axis, act as though made direct.

The classification of convulsions adopted by the French, is the simplest, and at the same time the most comprehensive that I have anywhere seen, viz: idiopathic, symptomatic, and sympathetic. The first of these classes is made to embrace such as in their causation, manifest no appreciable lesion of centre or periphery—in which no inquiry during life or after death, can prove the existence of an appreciable lesion to explain the phenomena, but in which the effects of the disorder are all the dis-

coverable pathological conditions. In these the predisposing cause is so potent as to need none other to produce the convulsions. To this class belong most cases of epilepsy, and especially those transmitted by descent. These are central in origin.

Those of the second class, symptomatic convulsions, also arise from central causes, and are such as in the subject are found lesions of the brain or cord, or of both, of which the convulsive paroxysm is regarded as a symptom, and in which a known factor is acting directly upon the nervous centres. To this group we refer the convulsions of pregnant and parturient women, and of the subjects of Bright's disease of the kidneys—those produced by brain tumors, by meningeal inflammations, &c. In this class, besides the factor which observation demonstrates, if the paroxysm be epileptic or epileptoid, there must co-exist the predisposing cause before enumerated.

The third class, sympathetic convulsions, comprises those seizures in which the exciting cause is excentric. A notice of some peripheral pathological condition, or irritation is transmitted to the cerebro-spinal axis by the nervous trunks when the impression is felt as though made direct, and acting upon a nervous substance predisposed to eruption, the explosion bursts forth. Such are reflex convulsions.

Eclampsia, as distinguished from epilepsy, is that form of epileptiform phenomena which is accidental in origin, and ephemeral in duration; from the like origin and duration of the direct producing cause, which in epilepsy, the continued operation of the producing agents makes the paroxysms successive and the disease continued. Eclampsia is accidental epilepsy—epilepsy is continued or frequently recurring eclampsia. Epilepsy may be idiopathic or symptomatic, but rarely is reflex or sympathetic—eclampsia may be sympathetic or symptomatic, but never idiopathic.

These considerations make it apparent that eclampsia is a secondary disorder, not itself a pathological condition, but the expression given by the nervous centres of suffering, either in their own substance or elsewhere. And in our conduct of a case, we need consider the convulsions only in so far as to guard the patient from the results they sometimes produce. All philosophical and rational means of cure must be directed to the conditions out of which they arise, and the safety of the patient will depend upon the promptness and wisdom with which we address ourselves to these duties.

Such frightful phenomena as enter into a paroxysm of eclampsia, cannot occur without serious apprehensions of their results, and they demand of us, that while busy with the rational means of cure, we spare no pains to hold the convulsions in abeyance until the originating factors can be removed. The means to this end are anæsthetics and narcotics, by which is obtund the perception of the nervous centres, and the conductability of the afferent nerve trunks, and thus blunt the points of the irritants. The truce thus secured, if truce it be, should be improved in efforts to find the disturbing cause or causes and remove them, else when the anæsthesia has passed away the paroxysm may return.

In symptomatic eclampsia, the exciting causes are generally slow and difficult of removal, if at all within our reach. If they be morbid growths, they are commonly beyond our approach; if the results of inflammation, they are often equally out of our power—if poisons from without, we may hope to sustain the patient until their force is spent, or they can be eliminated—if poisons from within, while we open the emunctories, the supply should be stopped.

According to the at present accepted doctrines, *uremia* is the most fruitful cause of puerperal eclampsia. Some of the materials resulting from tissue change which usually find exit through the kidneys by disease of these

organs, are detained in the blood and are carried by the current of the circulation to the cerebro-spinal centres where they act as direct irritants. In such cases we can only hope for relief by holding the convulsions in check by anæsthetics until we procure the elimination of the poison already in the blood, and correct the morbid condition by which it has been detained.

In the management of symptomatic or reflex eclampsia, we can much more often, perhaps generally, reach and remove the cause. Reflex puerperal eclampsia is not a condition of great peril, frightful as it may appear. The causes which acts as irritants are of short continuance—the crisis is soon passed and the danger gone. The irritants which produce the reflex eclampsia of infancy and children are very numerous, and are chiefly located in the *primæ viæ*. The phenomena which these produce occasion an exceeding degree of alarm to mothers and nurses, but are rarely the cause of serious results. The same indications for management are presented in these as in other cases of eclampsia, viz: control the spasm and remove the cause. Somewhere in the first volume of the *Indiana Journal of Medicine*, I published a series of observations of my own in the treatment of infantile convulsions of this character, to the effect that when chloroform is administered by inhalation to a child in the paroxysm, and pushed to complete anæsthesia, perfect security against the return of the paroxysm during that attack of illness is procured. My method is to press the drug until all spasm has ceased and the eyes have closed as in slumber, and hold it there one or two minutes in order to deepen and fix the impression. This done, I go about my management well assured that if I have not mistaken the class to which the eruption belongs, there will be no return of the convulsion during that illness. I have never, however, nor would I, neglect to address myself to the other necessary means of cure. Whether if the anæsthetic were administered in

the interval between the paroxysms the same indemnity would be secured, I do not know, never having made trial upon that point.

I am not aware that others have made observations upon this point, but am quite sure that trial would remove much anxious fear from both physicians and nurses. I will now add, that since that paper referred to was written, many opportunities have occurred to me to prove the conclusions then stated, and with no different result. In no single case has the rule failed me. So much do I rely upon the deductions arising from these trials which embrace every opportunity presented to me in sixteen years, that I now believe chloroform is a means of differential diagnosis between symptomatic and sympathetic infantile eclampsia. Should the convulsions return after the anæsthesia has passed away, there need be no doubt of their cause being centric, and a prognosis based upon such trial has yet to deceive me. Why this is so I can only solve by presuming that chloroform induces such a change in the molecular state of the nervous centres as remove so much of the predisposing cause of the eclampsia, that nothing less than direct irritation can excite an eruption.

Like indemnity is not secured in adults. It has often been my observation as well as that of others, that in reflex puerperal eclampsia, complete control of the convulsions is only attained by the continuation of the anæsthesia until the exciting cause is removed.

I cannot now, nor have I proposed to enter upon a detail of special treatment for eclampsia. My purpose was only to discuss some general points relating to its nature, cause, and control. In closing, however, I desire to call especial attention to so much of a paper upon *Veratrum Viride*, presented by my excellent friend, Dr. S. S. Boyd, of Dublin, Ind., to the session of the Indiana State Medical Society held this year, as relates to the use of that drug in the treatment of puerperal convulsions. It will be found in the forth coming volume of transactions of that Society.

Proceedings of Societies.

REPORT OF A CASE OF URINARY CALCULI.

Successfully removed by me, assisted by Dr. T. B. Campbell, of West Lebanon, Ind., and Dr. J. C. Blanchard, of State Line City, Ind., April 13, 1874.

Transmitted for publication, by order of the Fountain and Warren Medical Society.

CASE—Ben Gray, alt. 19½, height 5 ft. 5 in., weight 75 pounds, color of hair light, color of eyes blue, complexion light, had suffered from bladder difficulty since 2 years old, when he was not able to retain his water but for a short time, and if the urine was not voided frequently it would dribble away, he not being able to control the bladder. This trouble was first noticed upon his recovery from a severe illness, the exact nature of which I was unable to ascertain, but he gradually grew worse, and at times would be confined to his bed for months, when the disease would subside and he would be able to walk about the house and yard. During the exacerbations he was treated for “kidney disease” and “ulcer on the bladder,” the question of stone in the bladder having apparently never been suggested to the mind of any of his many attending physicians until August 21, 1873, when I was called to see the case, and I found him in very feeble health, being unable to sleep, suffering from loss of appetite, a predisposition to tubercle with considerable cough, incontinence of urine, and was passing great quantities of crystalized sediment from the bladder and at times scales $\frac{1}{8}$ of an inch in width by of an inch in length. I explored the bladder with common silver catheter, and found a stone of large size lying in a bed it had made for itself in the posterior wall of the apex of the bladder, and upon introducing the finger into the rectum I could distinctly feel the large stone as well as two smaller ones, and could rap the lat-

ter against the former so as to elicit a sound loud enough to be distinctly heard. There was soreness of the uthera and bladder with an abundant discharge of mucous and blood. I put him upon supportive treatment, consisting of a variety of good nutritious food, stimulants and tonics, and advised the removal of the stone by the operation of lithotomy, but such an operation being entirely new to the patient and his friends they were undecided, and it was not until March 30, 1874, (after over six months of valuable time had been lost, the patient growing worse if it were possible and at any rate in eminent danger all the time,) I was again called to see the case, and found him in a still more unfavorable condition to bear the operation than before, and he was suffering from a severe attack of epididymitis upon the right side excited by the inflammation of the skin. To prevent sloughing I made two incisions of five inches in length each parallel at the raphe and half inch deep, and had a free discharge of blood and serum, the fluids confined within the tumor being discharged through their ruptured walls into one incisions upon the second day after the operation, when the disease rapidly subsided and I got permission to remove the stone as desired, although at this time I considered the operation a very risky one. I chose the plan of removing with the knife in preference to crushing, on account of the size of the stone, but if it had not been over $\frac{3}{4}$ of an inch in diameter I should have attempted its removal by dilating the mouth of the bladder from an incision made through the perineum into the membranous portion of the uthera. I kept the patient upon preparatory treatment until April 13, 1874, when I removed the stone by the lateral operation of lithotomy. I directed a full dose of castor oil the evening before, and syringed out the bowels well just before commencing the operation, at which time an ounce of brandy and $\frac{1}{6}$ of a grain of sulph. morphia was administered. Placing him upon a table properly prepared before a good light, Dr. Campbell proceeded to adminis-

ter chloroform, and for a time his pulse which was weak and 132 per minute improved, but soon become very weak and flickering, so much so that we doubted the propriety of proceeding with the operation, but feeling that his only salvation lay in a successful operation we determined to proceed. Using the staff as a searcher we could feel the stone very easily, in fact it was impossible to pass the sound or staff into the bladder without coming in contact with the stone, and when the staff passed in, it seemed to pass around the end of the stone and remain pushed very much over toward the left side of the bladder so that after making my first incision, beginning $1\frac{1}{2}$ inches above the verge of the anus and just to the left of the median line of perineum, and carrying it obliquely $2\frac{1}{2}$ inches to a point about midway between the anus and the tuberosity of the ischium, and about $\frac{3}{4}$ of an inch deep. I found the staff $\frac{3}{4}$ of an inch farther to the left of the patients body than I supposed I should, but Dr. Blanchard holding the staff firmly up under the pubis arch I was able to go safely into the bladder. On account of the large size of the stone, I had to make an extensive opening into the bladder, which I did by degrees and finally reached the utmost point advisable in the direction of the left lobe, when upon a cautious but firm pull, I brought the stone out and found it to measure 2 inches in length by $1\frac{5}{8}$ inches in one diameter, and $1\frac{1}{4}$ in another diameter, it being a little flattened and weighing when first removed $1\frac{3}{4}$ ounces. We washed out about one ounce of sand, but failed to find the smaller stones, and placed the patient in bed with instructions to be kept perfectly quiet. He rallied from the chloroform in half an hour and remained entirely free from pain during his entire recovery, which was remarkably rapid.

The external wound closing up in 17 days, and his appetite was good, he slept well and gained in flesh very fast. About two weeks after he had passed all the water

through the natural channel, he passed one of the small stones through the uthera, it being over $\frac{1}{2}$ an inch in length by nearly $\frac{1}{2}$ an inch in width and fully $\frac{1}{8}$ of an inch in thickness, being flat, since which time he is entirely relieved, only having to void the urine about every four or five hours, can retain it well except when he neglects to empty the bladder as often as stated above. Examined urine June 12, 1874, and after thorough search failed to find any deposit, and the urine is healthy and entirely free from the crystalized deposit.

He is in good flesh and can plow corn without suffering any bad effects from it, and is apparently perfectly cured of his former trouble.

Very respectfully, T. F. LEECH, M. D.

Reviews.

CYCLOPEDIA OF THE PRACTICE OF MEDICINE.—Edited by Dr. H. Von Ziemssen, Professor of Clinical Medicine, in Munich, Bavaria. Vol I., Acute Infectious Diseases, by Professor Liebermeister, of Tubinger, Professor Leehanst of Breslau, Dr. Hænisch of Griepsuald, Proseessor Heubner of Leipzig, and Dr. Aerted of Munich. Albert H. Buck, M. D., Editor of American edition, New York; Wm. Wood & Co., 27 Great Jones Street.

What Holmes' comprehensive work is in surgery, this is in medicine. We have already given to our readers the announcement of this work, than which nothing more valuable as a book of reference and encyclopedia of the present status of medical knowledge is befor the profession. The present volume treats of typhoid, relapsing and typhus fevers, cholera, the plague, yellow fever, dysentery, epidemic diptheria, etc. No practitiener should or can afford to be without all the volumes of the series in his library.

In treating of infectious diseases, Liebermeister classes them, 1st. "purely contagious," such as scarlatina, small-pox, etc. 2d. "purely miasmatic,"—intermittent fever, etc.; 3d. "miasinatic contagious,"—typhoid fever, cholera, and yellow fever are examples. In the first, the germ originates within; in the second, from without the body; in the third, the germ originates from without the body affected, but by means of special germ, having their sources in a former origination. Taken altogether, and judging from volume one, this series will be the standard authority upon the subjects treated for the space of many years.

A PRACTICAL TREATISE ON THE DISEASES OF WOMEN.—

By F. Gaillard Thomas, M. D., Professor of Obstetrics and Diseases of Women and Children in the College of Physicians and Surgeons, Philadelphia. Fourth edition, thoroughly revised. H. C. Lea, Philadelphia. Cathcart & Cleland, Indianapolis.

This is a standard authority, and needs no extended notice. Many points that were only mentioned in the former editions, is in this more fully elaborated.

Editorial.

VITAL STATISTICS OF MICHIGAN.

The Fifth Annual Report of the Secretary of State, relating to Births, Marriages, and Deaths, for the year 1871, is just from the press. It bears the marks of accuracy, intelligent classification, and valuable deduction, which characterize all work of this kind from the hand of Dr. H. B. Baker, the accomplished Secretary of the

State Board of Health and Superintendent of Vital Statistics. It contains 376 pages, and has been generally supervised by Daniel Striker, Secretary of State, under whom these reports have improved with the growth of population.

The laws for collection of these statistics were amended to some extent by the Legislature of 1873, but not as fully as had been recommended by the Secretary of State. The following amendments are still needed: A clause requiring records of the births, marriages, and deaths to be made immediately after they occur, so that none of them be forgotten and lost by officers; one requiring uniformity in reckoning the exact age, say at last birthday; one requiring a report of the nativity of parents of all who die, of the occupation of fathers of children who die below a certain specified age, say 15 years, and of the christened names of children born and previously returned before such names have been given them.

In computing the percentage in this Report with reference to population, the census of 1870 has been taken as a basis.

The imperfection of the returns, the complicated nature of the work, and the extra care required in its execution, tend to delay the publication of reports of this kind; and in the present case other and unavoidable circumstances have caused a greater delay than usual. But after all, the great value of a work of this kind depends more on its accuracy than on its speedy publication.

The general comparative result is shown by the following exhibit:

| | 1868 | 1869 | 1870 | 1871 |
|----------------------------------|--------|--------|--------|--------|
| Marriages..... | 8,635 | 10,284 | 9,643 | 10,181 |
| Births..... | 25,020 | 27,093 | 26,668 | 25,992 |
| Deaths..... | 8,235 | 9,145 | 10,766 | 9,728 |
| Excess of Births over Deaths.... | 16,785 | 17,948 | 15,897 | 16,267 |

Four diagrams, designed by Dr. Baker and beautifully executed by the Calvert Lithograph Company of Detroit, exhibit the varying rates of the births, marriages, and deaths throughout the year.

BIRTHS.

Of the births in 1871, 13,596 were of males, 12,327 of females, and the sex of 69 was not reported.

In Ingham county the total population in 1870 was 21,268,—13,096 males and 12,172 females. The number of marriages in 1871 was 235; number of births, 567,—285 males and 282 females; deaths, 192,—103 males, 88 females; and one “unknown,” that is, not reported; giving an excess of births over deaths, 375—182 males, 194 females, and one “unknown” more deaths than births.

The year 1871 gives the greatest number during the last quarter (Oct. 1 to Dec. 31,) whereas other years, both in this State and in Massachusetts, give the greatest number during the third quarter. It seems that the proportion of births in any given period of the year is influenced by climate and season, as well as by the direct proportion of marriages in the various periods of the year; but the statistics on these points are not very valuable as yet, owing to want of promptness in recording. A good approximation, however, is obtained by rules of correction derived from numerous comparisons of data. In the following table the reader can see the difference between the numbers as returned by the registration officers, and the same as corrected by the rules referred to, and equalized to months of uniform length (30.44 days each :)

| | Returned. | Corrected & equalized. |
|----------------------|-----------|---------------------------|
| Total for State..... | 25,926 | 37,890 |
| January | 1,737 | 2,992 |
| February | 1,688 | 3,127 |
| March | 1,987 | 3,227 |
| April..... | 1,899 | 3,091 |
| May..... | 2,046 | 3,124 |
| June..... | 1,898 | 2,900 |
| July..... | 2,171 | 3,106 |
| August..... | 2,536 | 3,508 |
| September..... | 2,518 | 3,476 |
| October..... | 2,478 | 3,194 |
| November..... | 2,329 | 2,990 |
| December..... | 2,689 | 3,155 |

But the number of births returned for December as compared with January is greater than it ought to be, the

registration being made in the latter month, and a more faithful record being therefore made for the month just past than for a month past nearly a year previous.

The proportion of births to population in each race or color is as follows: For the aggregate of all colors, 2.265; white race, 2.258; Indian, 3.139; African, 1.903. An unusually large birth-rate is attended with a greater than average proportion of female children, while a diminished birth-rate is attended with a greater than average proportion of male children.

In Ingham county the proportion of males and females born in 1871, compared with the total of each sex respectively, was 50.26 per cent of the males to 49.74 per cent. of the females.

The statement is sometimes made that no variety of plants or animals or race of human beings will thrive except through at least occasional infusion of new stock,—"new blood." It has been alleged, though not proven, that the Caucasian race is dying out here in America, and is only kept up by results of foreign immigration. But the popular current of sentiment is adverse to this. Now, from registration returns so far there is no evidence bearing in either direction on this question.

MARRIAGES.

The following table gives a general comparison of the numbers:

| | 1868 | 1869 | 1870 | 1871 |
|---------------------------|-------|--------|-------|--------|
| Totals for state | 8,365 | 10,284 | 9,643 | 10,181 |
| 1st quarter of year | 1,527 | 2,293 | 2,484 | 2,475 |
| 2d " " | 1,813 | 2,256 | 2,134 | 2,253 |
| 3d " " | 2,154 | 2,442 | 2,157 | 2,420 |
| 4th " " | 3,133 | 3,275 | 2,851 | 3,018 |

Marriages in Ingham county in 1871, 235.

Among the months, December still bears the palm for marriages. November, which had been second for three years, dropped to third in 1871, October being second. The fewest marriages are generally in June; next, August and February.

In 1871 there was one person married in this State at

12 years of age, 3 at 13, 27 at 15, 120 at 15, 638 at 16, and 12 at 75 and over. In Ingham county that year 11 males were married under 20 years of age, and 69 females; in the State 293 males and 3,614 females. In 1870 there were 119 illegal marriages reported in the State, on account of parties being too young, and in 1871 there were 159 such marriages. The penalty upon the officer for solemnizing such marriages is \$500 and imprisonment in jail one year, and ought to be inflicted.

A two-paged table in the report before us is devoted to marriages where there was great disparity of age, 60 of such being given for the year 1871. A farmer in Hillsdale county aged 74, married a girl of 19; and a farmer in Wayne county, aged 22, married a woman aged 42; and the rest of the 60 range between these extremes. In Ingham county a man of 46 married a woman of 21; and another man, of 20, married a woman of 37.

DEATHS.

The following is a general summary:

| | 1868 | 1869 | 1870 | 1871 |
|------------------|-------|-------|--------|-------|
| Totals..... | 8,235 | 9,145 | 10,766 | 9,728 |
| 1st quarter..... | 1,789 | 1,758 | 1,698 | 1,888 |
| 2d " | 1,568 | 1,894 | 2,121 | 2,097 |
| 3d " | 2,761 | 2,949 | 3,920 | 2,926 |
| 4th " | 2,046 | 2,896 | 2,992 | 2,760 |
| Average..... | 2,059 | 2,286 | 2,691 | 2,432 |

The true numbers, however, are supposed to be 65 per cent. greater than the above.

By months the deaths in 1871 were: August, 1,083, Sept. 1,055, Dec. 1,029, Oct. 933, Nov. 798, July, 788, March 781, May 750, April 721, June 626, Feb. 578, Jan. 529, unknown 57; average 810.66. August and September are generally the months of greatest mortality, and January and February of the least; but the usual defects in returns vitiate the above results to some extent.

By ages the deaths in 1871 were as follows:

| | | | |
|------------------|-------|-------------------|-----|
| All under 1..... | 2,227 | 55 to 60..... | 320 |
| All under 5..... | 3,835 | 60 to 65..... | 329 |
| 5 to 10..... | 571 | 65 to 70..... | 334 |
| 10 to 15..... | 292 | 70 to 75..... | 363 |
| 15 to 20..... | 373 | 75 to 80..... | 281 |
| 20 to 25..... | 496 | 80 to 85..... | 176 |
| 25 to 30..... | 403 | 85 to 90..... | 76 |
| 30 to 35..... | 357 | 90 to 95..... | 42 |
| 35 to 40..... | 375 | 95 to 100..... | 42 |
| 40 to 45..... | 313 | 100 and over..... | 7 |
| 45 to 50..... | 279 | Unknown..... | 220 |
| 50 to 55..... | 274 | | |

Seven centenarians died in this State in 1871, namely, Jane Sebastain, aged 104, in Chippewa county; she belonged to the red race, and was born in the region of Hudson Bay; Osquaacoquar, aged 100, red, died also in Chippewa county; Phebe Myers, white, aged 102, died at Reading, born in New York; Maria Mell, White, aged 100, died at Algoma, Kent county, born in Pennsylvania; Aish ke-bah-gosh, Indian man, aged 100, died in Oceana county; Catharine McGowan, white, aged 106, died at Port Huron, born in Ireland; Sarah Hall, white, aged 100, died at Detroit, born in England.

From Keweenaw and Mackinac counties, and from numerous townships elsewhere in the State, (altogether containing a population of 40,839 in 1870,) there was no report; and 24 townships, besides the whole county of Missaukee, report that no deaths occurred in 1871. It seems wrong to doubt the certified return of a Supervisor, but it is difficult to believe that no deaths occurred during the year in a township like Chesaning, containing 1,507 inhabitants in 1870.

For the purposes of comparison and deduction the State is divided into 11 districts, and all diseases are classified into zymotic, constitutional, local, developmental, etc.

Of the 9,728 deaths in the State, from all causes, 8,654 were from specified causes, namely, 2,642 zymotic, 1,852 constitutional, 2,619 local, 1,002 developmental, and 539 from violence. The deaths from the principal diseases were as follows:

| | Males. | Females. |
|-----------------------------|--------|----------|
| Consumption..... | 635 | 668 |
| Scarlet Fever..... | 324 | 371 |
| Pneumonia..... | 268 | 173 |
| "Old age"..... | 179 | 193 |
| Typhoid Fever..... | 192 | 165 |
| Causality..... | 216 | 30 |
| Heart Disease..... | 126 | 104 |
| Diarrhœa..... | 116 | 100 |
| Inflammation of brain..... | 113 | 102 |
| Dropsy | 86 | 124 |
| Inflammation of bowels..... | 100 | 84 |
| Brain Disease..... | 92 | 81 |
| Dysentery..... | 87 | 86 |
| Croup..... | 83 | 70 |
| Lung Disease..... | 83 | 69 |

The above comprise more than half of all the deaths, and consumption this year, as usual, leads the van, with over one-eighth of all the deaths.

This Report contains scores of tables, which have required an immense amount of labor in their compilation, and closes with a reprint of the laws concerning the solemnization of marriage, and the record and return of births, marriages, and deaths.

THIS volume of the Journal ends with the April number. We do not propose to continue it longer at its present price. With the new volume we shall charge the sum of \$2.50 per annum, and we say now that unless we receive encouragement, commencing May 1, 1875, that we shall discontinue it, and no more copies will be issued at least by the present editor. The price was always too low—postage has now to be prepaid by the publisher, etc., so we can't continue without the encouragement stated. The Journal will have at that date completed its fifth year, and we can with truth say, that for the amount of *original* matter, it has not been behind any Journal of its size. The profession throughout the State have supplied a liberal amount and as good as the average from the store-house of their experience. Those who study the Journal as they should will be benefited as much by such means, as by the perusal of several larger but foreign Journals, for in its pages are found such things as are of

great value to practitioners in their every day work. But if it is wanted it must be supported *financially*, it cannot be so supported with the price stated, therefore we make that the ultimate; let all fully understand and so act. Those who agree to this proposition will please send us at once something like the following:

Editor Indiana Journal of Medicine—Please send me the Journal for 1875, at \$2.50.

RELIABLE MEDICINES.—It certainly is a matter of no small moment that the practicing physician should have his prescriptions prepared from remedies of officinal strength and purity, or if he prescribe a dose of sugar-coated pills, they should contain the given proportions of the drug according to the formula. Without saying one word disparagingly of other manufacturers, we are prepared to say of Johnston & Lilly's goods, that these requirements are fully met, and in this we express but the opinion of all we have seen who have used them. Indianapolis now has its Medical Colleges well organized to train and prepare the physician, and we are glad that Johnston & Lilly's laboratory is established here on a firm basis, for it must serve to make the city more interesting to the Medical Student as well as practitioner.

UNUSUAL OFFER.—Dr. E. S. Gaillard of Louisville, Ky., Editor of the Richmond and Louisville Medical Journal, and the American Medical Weekly, makes to the public this unusual and liberal offer: To subscribers to the first Journal, 12 handsomely engraved portraits of distinguished European and American physicians; to the subscribers to the Weekly, one of these portraits in each of the two volumes for 1875. The price of the first Journal is \$5.00 annually, and that of the last, \$2.00 for the same period.

MRS. WILLIAM WHEATLY, of Vernon township, Hancock county, Indiana, on the 3d of January, 1875, was

delivered of a son weighing fourteen pounds net, being the thirteenth birth. Both mother and child were doing well when last heard from. J. G. Stuart of Fortville, a student of the College of Physicians and Surgeons, was the accoucheur.

Miscellaneous.

SYNOPSIS OF PAPERS READ BEFORE THE AMERICAN HEALTH ASSOCIATION, 1874.

CAN SMALL-POX BECOME EPIDEMIC.

Dr. Edwin M. Snow, Superintendent of Health, Providence, R. I., read the following paper upon the question, Does small-pox become epidemic, or is its spread solely by its own contagious property?

The phrase, "epidemic small-pox" is common in writings upon medical and sanitary subjects. Whenever that disease is prevalent in any place it is freely and generally spoken of as "epidemic," without apparently, any very definite idea of what is meant by the word. In addition to this common use of the term as applied to the prevalence of the disease in single cities or districts, we often hear of "the epidemic of small-pox that has prevailed in Europe and America during the last few years," thus asserting the existence not only of a local cause of small-pox in single places, but of a wide-spread cause, which extends at the same time over continents and oceans.

A writer in the *Sanitarian* for the present month uses language similar to this; but a more full and definite statement of what is meant by the phrase "epidemic small-pox," and of what is claimed in regard to it, is found in the following language from the fourth annual report of the Massachusetts State Board of Health for the year 1872:

"We are now in the midst of an epidemic influence of small-pox poison more virulent than has been known for many generations. The evidence is abundant to show that both in Europe and America there is, for some reason entirely unknown, a readiness in the human body to receive both the virus of small-pox and the virus of the vaccine disease such as no one living has before seen.

There are records of such epidemics before the great discovery of Jenner, and they were truly terrible—destroying from one-fifth to one-third of all who were seized, and this comprised the whole population except those who had been previously attacked or had been inoculated with the small-pox virus.

The present epidemic is of such intensity that it is quite common for persons who have had small-pox in former years to now have it again. Such occurrences have been previously rare.

Vaccination, whether from the cow or from the human body, 'takes' readily, and re-vaccinations prove abundantly the extraordinary susceptibility to the vaccine disease now prevailing, and *never before existing*."

This is strong language, and describes vividly, though we think with some exaggerations, a condition of things that existed in Boston in the Winter of 1872-3. A condition of things precisely similar existed in Philadelphia in the Winter previous, and has existed within a few years in Cincinnati, St. Louis, San Francisco, Washington, Pittsburg, Lowell, Worcester, and other cities in this country, and in London, Paris, Berlin, St. Petersburg, and other cities in Europe. We are all familiar with a similar condition of things, though not perhaps to the same degree. We have all seen times when the small-pox seemed to spread more rapidly, and more easily than at other times, and when vaccination seemed to "take" more readily. But does this condition of things, when it exists, depend upon any "epidemic influence of the small-pox poison?" In other words, Can small-pox become epidemic?

There are two points in the language I have quoted from the Massachusetts Report, to which I wish to call attention. The first is the description of the state of things relating to small-pox, which is ascribed to epidemic influence.

Second.—The claim that this “epidemic influence of poison” existed at the time named—the Winter of 1872–73—not only throughout the State of Massachusetts, but even throughout all Europe and America.

Let us first examine the *second* portion of the subject. Though it is quite common to speak, as in the language quoted, of the epidemic of small-pox as wide-spread and even covering both continents, I cannot see the reason for the statement, nor acknowledge its truth. At the time named, it is undoubtedly true that there was a very general prevalence of small-pox in the city of Boston, such as is rarely seen in this country; but it is not true that, at that time, this condition of things existed generally in Europe or in America—no, not even in New England, nor even throughout the State of Massachusetts. In truth, there was no marked prevalence of small-pox at that time in this country, except Boston and in a few Western cities.

We might show further, that this prevalence of small-pox, called a terrible epidemic, was not wide-spread or general, even in Massachusetts, from the fact that, during the whole thirteen months, cities of considerable size, near and in constant communication with Boston had only a very limited number of cases of the disease. Thus Lynn, with 30,000 inhabitants, within ten miles of Boston, had only seventeen cases; Worcester, forty-two miles distant, with 45,000 people, had only twenty-four cases; Lawrence, twenty-five miles distant, with a population of 30,000, had only thirty-seven cases. In all these places the most of the cases that occurred were brought from Boston, and yet it is certain from the figures given, that no terrible epidemic influence existed in them.

Was this an epidemic influence, or can it be explained more rationally in some other way? In other words, Can small-pox become epidemic? We understand by an epidemic influence, some cause of disease which is wide-spread in its effects upon the people, which is independent of the ordinary or sporadic causes of diseases, and which in itself and by itself has some power toward producing disease. Thus, for an illustration, when Asiatic cholera is truly epidemic there is wide-spread over the country an influence which, of itself, tends to produce cholera, and which, in connection with local causes, does produce it, and without which the cholera cannot exist even though all the local causes may be present. Can we conceive of any such influence in connection with small-pox; any influence that can be correctly called epidemic? We all acknowledge small-pox to be contagious, and so far as we know, no case of disease ever occurs at the present day without contagion either direct or indirect. There may be cause like cold, which preserve the contagious virus and make it more active; and there may be causes like heat, which tend to weaken and destroy its power; but we can conceive of no cause that will have the slightest tendency to produce a case of small-pox without contagion.

What, then, was the cause in the City of Boston, at the time named, that produced the stage of things so vividly described in the extract we have given, when the small-pox seemed to fill the air, and to leap from house to house, and to spread through the city, defying all attempts to trace the course of the contagion.

Let us consider for a moment what a case of small-pox is. Each case, from its beginning to its close, is a living manufactory, in active operation, of virulent contagious poison. Every part of the body, yes, every pore of the body, exhales this poison; every secretion of the body is saturated with it. It is manufactured in the skin at first in a liquid form, and then dries up and is preserved in quantities sufficient, in each ordinary case

of small-pox, to give the disease to millions of persons. All the clothing, bedding, and furniture of the sick chamber are infected with the poison, and give it forth into the atmosphere every time they are moved. More than this, every person sick with small-pox is breathing forth volumes of the contagion with every respiration. Thus the 600,000 cubic inches of atmospheric air that each patient inhales each day into his lungs changed into a virulent contagious poison.

This is a single case of small-pox. Now if thousands of these cases exist at the same time in a crowded city, and if the number continues full week after week, and month after month, it must certainly be sufficient to render the air of the city infected, at least in sections of it, so that persons might take the disease in passing the streets without seeing or coming in direct contact with any case.

So, too, this concentration of small-pox poison would affect the whole people, giving the disease to all who had any remnant of susceptibility for it. Some persons who had previously had the small-pox, and some who had been vaccinated, would again be affected with the disease in its modified form. This was precisely the condition of Boston for a considerable period in the Fall of 1872, and the following Winter. It seems to me possible, and indeed probable, that the amount of the disease in that city, at that time, was sufficient of itself to produce all the conditions which were ascribed to epidemic influence in the extract from the report already presented. These conditions did not exist in the cities and towns named, within a few miles of Boston, simply because there was not enough of the disease in those towns to produce them, and the fact that these conditions did not exist in those towns is, of itself, proof positive that there was no true epidemic influence of small-pox poison existing in the State at that time.

My conclusion is that the great prevalence of small-pox in Boston in 1872-73, as well as in Philadelphia the

year previous, and in other cities from time to time, had no connection with any true epidemic influence; but that the condition of thing existing in those cities, and resembling an epidemic when the disease was at its height, was due solely to the great number of cases of the disease existing at the same time in a crowded city.

It seems to me that the interests of sanitary science require us to repudiate the idea that the prevalence of small-pox may depend upon any mysterious influence called epidemic. The language itself is inconsistent and absurd. Small-pox is the result of a specific poison applied to the human body, through the skin, or through the lungs, and producing definite, specific effects. The vaccination disease is the result of a specific poison applied to the human body through the skin, and producing definite, specific effects. Both the vaccine disease and small-pox are frequently prevalent in our cities, to greater or less extent, the vaccine disease much more so than the small-pox. May we not as well speak of the epidemic influence of the vaccine poison as of the epidemic influence of the small-pox poison? We do not need the theory of "epidemic influence" to account for the prevalence of small-pox in any place; nor can we agree that such a theory is any valid excuse for such a prevalence of the disease. In this assembly, certainly, the doctrine established that small-pox is propagated by contagion, and that we have in vaccination an almost absolutely perfect preventive of it. Whatever, then, may be our views in regard to epidemic influence, as sanitarians we must all agree, with reference to any and to all cities and communities, that the prevalence or the absence of small-pox will always be in exact ratio to the neglect or the observance of sanitary measures, including vaccination, by the authorities and by the people.

THE IMPORTANCE OF VACCINATION.

Dr. Joseph M. Toner, of Washington, next read an important paper on the conditions and accidents which en-

danger, limit, or prevent vaccination from giving full protection against small-pox.

Are there any conditions or accidents for which neither vaccination itself nor the physician is responsible which may occur to render the operation ineffectual against small-pox? We believe there are defects in the practice as at present conducted, but they are of a character to be removed, corrected, or prevented. Some of these depend upon the condition, the age, and the habits of the patient; and others that grow out of the care taken by or of the individual after the virus is introduced; and still others relate to the genuineness of the virus itself, its freshness, its proper introduction, and its security against interference through every stage of its development and decline. We must recognize the fact that communities are composed of persons representing almost every standard of health, of every age, of different degrees of intelligence and regard for cleanliness and personal comfort; hence the success of the measure is embarrassed by the existence in many various forms of disease, local and constitutional. The profession must therefore consider and estimate whether any impediment or unfavorable influence is exerted over vaccination by particular affections, pursuits, or occupations, and to what extent they may defeat protective vaccination so as to be able to correct the failure from this source. The existence of any general fever or specific eruptive disease has since the introduction of the practice of vaccination been considered as liable to defeat the development of the true protective vesicle.

I but assert the conviction of not only every medical man, but of every intelligent citizen, that a properly performed and successful vaccination, whether with a humanized or animal virus, is as complete a protection against small-pox now, as it ever was, and is a more perfect prophylactic than we possess against any other known disease. Jenner himself recognized the existence of a spurious cow-pox, which gives no protection, and stated

that it was so similar in its appearance to the genuine as to mislead all but the most careful observers.

It is, therefore, of the highest importance, and a prerequisite to success, that the vaccinator obtains for his uses virus of unquestioned purity, whether from the animal or from the human subject. Although I should prefer the use of lymph in all vaccinations, yet the difficulty of reserving and storing it is so great as to place it almost beyond the power of physicians in general, and particularly those in country practice, to keep up a supply in a condition of undoubted purity. But, while the lymph is to be preferred, I am very confident that crusts formed on the arms of healthy infants from the introduction of genuine fresh virus, when the vesicles form at the regular time, and present all the characteristic appearances, and pass through all the different stages of developement and decline without rupture or waste of the lymph, and come off at the regular time, will produce vaccination in others with entire safety and with uniform success, giving a protection quite equal to that gained where the virus is taken directly from the heifer. The particular mode of introducing the virus, perhaps, makes but little difference in the result produced, provided no undue injury is done to the tissues, and the lymph, or dissolved crusts, are brought in direct contact with the absorbents that lie in the cutis, although the shape of the resulting vesicle may depend somewhat upon the particular operation.

Insusceptibility to vaccination is rare. Failure to induce vaccination is more frequently the fault of the virus used than of the operator and insusceptibility of the individual. The distinctive and essential characteristics of a successful vaccination are the vesicles and the areola; the febrile or constitutional disturbance formerly considered so important may be so slight as to scarcely attract attention, yet the protection is sufficient. Severe constitutional symptoms are more frequently met with in revaccinations than in primary ones.

Dr. Seaton, one of the very best living authors on vaccination, does not favor unnecessarily frequent revaccinations. After a successful primary vaccination in infancy that produce two or more typical vaccine cicatrices, he should not revaccinate, except the exposure was unusual, until the period of puberty. We must not confound the broken and ruptured vesicle of an otherwise genuine vaccination with that resulting from spurious vaccination set up from fault in the virus, or in the system itself, which they often greatly resemble. But I am inclined to believe any injury that would break or greatly irritate the primary papule before the distinct vesicle has formed, may so alter the character of the development and protective process as to render them unprotective. Though some areola give evidence of the constitutional effect by slight fever and tenderness of the axillary glands, the sufficiency of the vaccination cannot be relied upon. When vaccination is so performed as to produce a number of vesicles, and when all but one should accidentally be broken and the lymph wasted before the ninth day, I would deem it advisable at once, or within a few months, to revaccinate, because of the apprehended insufficiency from want of quantity. The importance of preserving without disturbance at least two genuine protective vesicles gains the strongest testimony from observations of Marson.

J. S. Billings, M. D., Assistant Surgeon, United States Army, presented an "Abstract of Special Reports by Army Medical Officers on the Effect of Mountain Climate upon Health."

Dr. Billings said that he was authorized by the Surgeon-General to read extracts from various special reports in relation to the effect of mountain climate upon health, with particular reference to the effect of altitude upon diseases of the lungs.

George M. Beard, M. D., of New York, presented a paper upon "Hay Fever, or Summer Catarrh." "Orig-

inal Researches upon the Geographical, Topographical, and other Etiological Characteristics of the Malady, with reference to its Causation and Prevention."

A GERMAN industrial journal gives, after M. Vupp, the following treatment for fabrics containing silk and wool, with vegetable fibres. All vegetable fibres resist caustic alkaline solution, even when boiling, and are dissolved by sulphuric, nitric, hydrochloric acids, even when diluted with heat. Vegetable fibres when burnt do not give forth any characteristic odor. Wool, insoluble in the above acids, is readily attacked by caustic alkalies, especially when hot; the sulphur which it contains combines with the alkali, and the solution becomes black when acetate of lead is added to it. In burning, wool produces the same smell as horn. Silk is dissolved both in the acids and the caustic alkalies, and produces an odor similar to that of wool; but it contains no sulphur, and, consequently, its solution in alkalies is not blackened by acetate of lead. In order to distinguish these materials in a tissue, it is treated first with concentrated hydrochloric acid, cold; the residue is then washed in a filter, and if necessary bleached, by means of water containing chlorine, and then washed again in pure water and boiled with caustic soda, which dissolves the wool, leaving the vegetable fibre intact. The wool is distinguished from silk by adding acetate of lead to the liquid, as already mentioned.

Dr Hays

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AN ATTEMPT TO UTILIZE THE FACTS OF ORGANIC LIFE;

*Physiologically, Pathologically and Therapeutically.*¹

BY F. M. WARFORD, M. D., CICERO, IND.

Read before the Hamilton County Medical Society Feb. 17, 1874.

At a former meeting of this Society, and during the consideration of the two papers, one on the "Origin of white corpuscles," in so called, "Leucocythemia," the other on the therapeutic uses and effects of bromide of potassium, we incidentally alluded to the phenomena of life as viewed from a physical basis, the generic totals being *nutrition* and *oxydation*, or constructive and destructive metamorphosis;—that disease, so called, is only a departure from the normal processes of the repair and waste of the tissues; that therapeutic agents have no other effect than promoting, retarding or arresting constructive or destructive metamorphosis. To these views exceptions were taken. In the present paper, although the special subjects that gave rise to the positions as above stated, may not be referred to, an attempt will be

made, to ascertain the facts of organic life, and divest them of the mystery and superstition, with which, from time immemorial, they have been enveloped, and from them alone, determine whether the positions taken have any reliable basis for support.

The investigation will, therefore, necessarily require frequent reference to the physical sciences and the known laws and forces operating in the inorganic world, in order to show the relations subsisting between them, and the material and forces of organized living beings.

When the Creator called into existence the Celestial and Terrestrial worlds, and placed them under the control of regular and uniform laws, they assumed definite form and shape, in obedience to a force co-eval with the formation of matter. We accept, therefore, the existence of both matter and force as a *first fact*, and cannot imagine, as possible, either their coming into existence, *sui generis*, or their ultimate or entire destruction.

The ultimate molecular arrangement of the particles of matter may be different, the physical contour of forms may be changed, or the chemical combinations now existing may not be the same as at the creation, yet, science tells us, that nothing has been lost. As with matter, so with force or motion, or the equivalents, heat, light electricity, chemical affinity, &c., which, to ordinary observation may seem to be lost, yet, on close investigation it will be found to be present, although changed in its physical effects, or the mode of its sensible manifestations, as for instance, when heat under certain conditions is converted into electricity, or electricity merged into and producing the phenomena peculiar to heat, and so with all the different modes of motion under certain conditions being naturally interchangable. We accept, therefore, as a *fact* that *matter* and *force* are *indestructible*. It is pretty generally conceded by modern scientists, that electricity and heat are only different modes of motion, one being the correlative of the other. Although the

nature of motion or rather force of which motion is the sensible manifestation, may not be satisfactorily defined, yet we are able to understand it far more fully, and to measure its effects and control its manifestations more successfully than was thought possible in former times.

The relation of force or the susceptibility of one mode of motion to be converted into other and dissimilar modes, producing entirely different effects, is called the "correlation of force."

The processes whereby force is stored up in the matter and preserved from loss are called the "conservation of force." Hence, the persistence of force and the pumulation of the different modes of motion, are formulated in the general law of the "*correlation and conservation of the physical forces.*"

Force is conserved in all chemical combinations of simple elements to form compounds, and is correlated, or set free on the retrocession of compounds to their simple elements.

We assume, therefore, that all the phenomena presented by the natural forces acting through matter, however correlated and made manifest, depend upon, and are reducible to, the two simple physical *units*, of form and motion, "form of material and motion in its ultimate molecular structure."

If a ball falls to the earth, we say that the velocity or motion is due to the force of gravity,—the law, that all bodies attract each other directly as the mass and inversely as the square of the distance.

The force holding the particles of matter together in intimate relations, is denominated cohesion.

The force directing the ultimate molecular particles of matter to assume a definite form or shape, as in the process of crystalization, or the uniformity observed, when a liquid is changed to a solid, or a solid to a liquid, may with equal propriety be called the *form force*.

Nature's processes are certain, regular and uniform; her laws are supreme; the form, order and symmetry of

the universe are due to their inflexible operations. The clouds borne aloft by the winds, and carrying their stores of rain, snow and electricity;—the upheavals from the depths of the earth, emitting fire, smoke and lava, are simply motion—motion in matter.

The organic world is no less controlled by the same forces. The air, earth and water, with their unnumbered genera and species of animal and vegetable existences, become but one extensive whole, a system of powers, a dissolving view of a portion of the sublime and universal cosmos—a unity—both in material and force.

Reasoning from the indestructability of matter, and the correlation and conservation of the physical forces, the mind, trained in the knowledge of physical phenomena, readily concludes that the same general laws that govern the inorganic, obtain in the organic world, and the task is undertaken with a desire to know the truth in nature, understand her laws, and be governed by her dictates.

The late Professor Agassiz, in the January number of the *Atlantic*, says, "It cannot be too soon understood that science is one—a unity—that whether we study, or investigate language, philosophy, or theology, or history, or physics, we are dealing with the same problem culminating in the knowledge of ourselves."

To this end, organic life must be studied on its facts alone, and all traditions, conjectures and hypothesis in conflict, will be left out of consideration entirely. In the inorganic world, man, with all the aid science can furnish, has discovered but sixty four simple elements; fourteen of these constitute the greater bulk of the earth including its air and water, the remaining fifty existing only in small quantities. The metalloids, oxygen, carbon, nitrogen and hydrogen, are the principal elements; oxygen, being the most widely distributed, constituting one-fifth of the air, eight-ninths of the water and about

one-third of the weight of the solid earth. In consequence of its wide distribution, oxygen is the most potent agent in all the transformations in the universe.

The principal metallic elements are iron, copper, lead, tin, zinc, silver, gold, sulphur and phosphorus. These elements, variously combined, and chemically united, give the forms to matter, and force is elevated by chemical changes in the molecular structure of the forms. As we have seen that form and motion are the physical units of nature, and that from them are deducible all the phenomena of the inorganic world, it is necessary, perhaps, to consider more fully the *manner* of the evolution of force.

In order to the evolution of force or the manifestation of any mode of motion, there must be material, and motion by chemical change, must occur in the molecular structure of the material; and this change is effected principally, if not entirely, by oxydation. All bodies, whether animate or inanimate, are continually undergoing changes in their chemical composition, by oxydation or decay, which is accompanied, in every instance, by the evolution of heat and light in direct ratio to the intensity of the combustion. In the decay of wood, which is slow combustion, extending over a period of years, we may not feel the heat or see the light, yet they are as certainly evolved, as in the rapid destruction of the material in a furnace in a few moments.

In these processes, the matter involved is not destroyed, but by the chemical action it is forced into new relations or new forms—perhaps, invisible forms. The heat, thus set free, may be stored up in other compounds, or correlated, changed into mechanical motion, capable of propelling the most powerful engine, or through the medium of the telegraph, as electricity, transmitting to widely separated portions of the earth the ciphers, indices or equivalents of thought, sufficiently definite to influence the actions of individuals or nations. Or again, it may enter into, and influence the growth and decay

of plants, or through the medium of animal organisms, evolve the forces, motions or phenomena of animal life, in all their varied manifestations, to be again returned to the inorganic world as the efficient cause of other and perhaps different phenomena in the great cycle of changes occurring in the universe.

Intermediate between the inorganic and animal kingdoms, stands the vegetable, the laboratory through which all inorganic elements pass before they can be appropriated by animals for the construction of their tissues and forms. The plant derives from the ground, the air and water, inorganic materials, which, under the influence of the ordinary physical forces, light, heat, and electricity, by chemical changes thereby induced, are transformed into vegetable organizations, capable of producing the phenomena of vegetable life, and again storing up, coincident with its decay, the material and force necessary to perpetuate the species, or for the reproduction of each special individual.

The forces, controlling the combinations of the physical elements so as to produce vegetable structure of definite form and shape, can be nothing more than a correlation of the ordinary *form force* of inorganic compounds, and is conserved in seeds, or grains, composed in their ultimate constitution, of inorganic elements only. When these seeds are planted or placed in favorable conditions as regards heat and moisture, decomposition begins, force is evolved, in accordance with the law heretofore stated, that when complexities are breaking up, force is set free, and through the agency of the chemical phenomena set in motion by the influence of the *actinic* force of the sun's rays—germination occurs, the starch of the seed is converted into glucose, or sugar, thus furnishing the food for the embryo plant, the *form* force impressing on the materials furnished by the metamorphoses occurring in the seeds, the distinctive form and type of the future plant. The materials stored up in the seed and the forces evolved consequent on their decomposition,

being sufficient to carry the plant to a state of organization and development, when it can appropriate and maintain its growth from other inorganic materials; and store up, in the act of its own decay, in a like seed from which it sprang, the materials and forces necessary for the reproduction of its kind. These processes are accomplished with such certainty and regularity, that by no transformation or disintegration however effected, can any other different species be produced.

In the processes of vegetable growth, decay and reproduction, we have failed to find anything which cannot be accounted for by the action of the natural forces operating through inorganic elements and compounds. The precise chemical changes that occur may not be accurately pointed out—of the fact that they do occur we can have no doubt. Recent scientific investigation and observations go to show that the vegetable germ or seed if deprived of the influence of the active rays of the sun, will not germinate, although supplied with the necessary heat and moisture; even the luminous rays of the sun, separated from their *actinic*, will not produce the recombination of the decomposing materials, but if they are brought under the influence of the actinic rays, germination readily takes place.

All the phenomena, incident to the growth, decay and reproduction of vegetable, may be reduced to the “two simple physical units, of form and motion—form of material, and motion by chemical changes in the material.”

The process of germination or reproduction in the animal kingdom is strikingly similar to that in the vegetable. The same duality of the operations of force will be observed. That *force*, the office of which is to organize and build up from new material furnished, without any special reference to, or regard for, individual forms of structure to be organized, we will call the “*formless force*,” “the *organizing or working force*.”

That force, whose only office appears to be, the giving

and preserving the types and forms of organized or organizing material, with special reference to specific differentiation of structure, is called the "*form force*, the *architect of organization*." This latter force is undoubtedly the same as the so called "*vital force*," a name, unfortunately for science, still retained in our standard works on physiology, and implies, if it means anything, the existence of a mysterious, supernatural, not well defined celestial agency, controlling the phenomena of living beings ; its counterpart to be found no where else in nature.

We prefer the more definite "*form force*" as being suggestive of, and in harmony with, the facts of life, as we understand them. Thus viewed, it gives definite conceptions of its office and function. As we have heretofore seen,^f that matter and force are never lost in the inorganic world, it follows, therefore, that the material and forces necessary to the organization and growth of animal life,^g are derived from the inorganic world, and again returned to the same source on the death of each individual.

No effort will be made to go behind the *germ*, in fruitless endeavors to unravel the mysteries of creation. The human germ, the type of the original *protoplast*, being given, we find it placed in a suitable position to receive the necessary amount of oxygen, heat and moisture, but here, as in the vegetable germ, if no other influence is exerted, the egg undergoes chemical decomposition, is cast off, and returns to the inorganic elements. But let the copulative force and material be furnished as completed in the sexes, then chemical transformations begin, force becomes active, endosmosis is established, the material begins to assume form and shape, the type is impressed and maintained ; segmentation of the vitellus occurs, and these segments again divide and subdivide in regular geometric ratio till the vitellin spheres are formed. Next in order of complexity is the completely organized blastodermic membrane.

Organization still progressing, the copulative or form force preserving the type, the formless or working force building up from new material, till, at length, a fully formed living being is produced, capable of maintaining life in other exterior relations. In the process of embryology, as elsewhere, the general law holds good ;—that as material ascends in complexity force is conserved, the organization itself being the correlant, or in other words it takes force to effect organization.

The whole process may therefore be reduced to the simple units, form and motion.

As no condition or relation of elements or forces, can increase, reduce or destroy the sum total of matter and force in the universe, and as nothing but inorganic elements enter into the composition of the human body, the only question left for us to determine is: do the varied phenomena of organic life depend upon the ordinary physical laws and forces, for their manifestations ?

However reluctant we may be, to admit, in opposition to standard authority, the fact, that the transformations of inanimate material into organic forms of structure, are due entirely to the operation of the natural forces, we cannot deny to ourselves the truth of the conclusion, that, complicated, mysterious and inexplicable, as may appear the phenomena evolved by the human organism, and the varied correlatives, of force in the dynamics of life, whether mechanical, chemical, sensory, emotional, or intellectual, they are all reducible to the "two simple physical units of form and motion." They must be studied on this basis alone, on their facts, all traditions, superstitions and conjectures to the contrary, notwithstanding. Truly may we say then, whether we regard its wonderful complexity, its dynamic capacity, its adaptation of means to ends, the human body presents to our view mighty problems for solution, and furnishes potent evidences of the existence, and design of a "*Great first cause*," a Creator worthy of adoration and praise, by the created, or creatures of His Power.

The inspired writer says, "all flesh is not the same flesh; but there is one kind of flesh of men, another of beasts, another of fishes, and another of birds." Yet, the flesh of these diverse individual existences may be constructed from the same food. In man, if he eat bread, it is transformed by the digestive and nutritive processes into the forms of structure peculiar to the human body, and capable of evolving in its oxydation and decay, the phenomena of human life. The same food, if eaten by the bird, the beast or the fish, is transformed into their respective tissues, with definite shapes or forms, capable of producing the phenomena peculiar to each individual or separate existence. The only real difference then, between the man, the bird, the beast or the fish, lies in their *forms*, and not in the matter and force concerned in their material organization.

Again, man may partake of the flesh of the beast, the bird or the fish, and the result will be the same, the production of normal human tissue, capable of evolving the dynamics of a human being. There is no haphazard or chance about it, or possibility of any other than human tissue being produced.

Now, is this uniformity due to the so called *vital force*, or to the more definite *form* force of inorganic compounds and vegetable organizations, correlated, as the form force of animal life. We prefer the latter view, as it accords more fully with the facts elsewhere observed, and fills the hyatus which has so long obstructed biological research and investigation. The whole process of digestion and assimilation, whereby food ascends to the maximum of organization—to living flesh of normal form,—is called *nutrition*, or constructive metamorphosis.

The human system possesses no power to appropriate directly inorganic elements to the nutrition of its tissues, but after they are organized by the vegetable and the lower orders of animal life they become proper articles of food for man.

Viewing man, through the things of nature that lead

up to him, we find, according to the law of the "correlation and conservation" of force, that the forces which organize vegetable tissue are the same as in inorganic nature; and the forces of animal life are the same as in the vegetable. They are mutually interchangeable, correlated and conserved, the one in the other.

Material thus worked into organic forms of structure, by the constructive process, must undergo disintegration, by chemical changes in its molecular structure, before, or coincident with the evolution of any of the phenomena, forces or manifestations of life. These changes being effected principally through the agency of the oxygen of the air entering the blood, through the lungs, and conveyed by the hæmatin to the distant capillaries, when, uniting with the carbon or other elements of the solid tissue oxydizes them, and as a result, tissue is destroyed in its molecular arrangement, heat is set free, or its correlatives in the dynamics of life are evolved. The products of these tissue transformations find exit at the various outlets, as the skin, lungs, bladder and lower bowel; a part, however, is taken up by the lymphatics and returned to the blood, to perform other offices in the economy, which will hereafter be considered.

This process is called oxydation, or destructive metamorphosis. In the processes of *constructive* and *destructive* metamorphosis the general law holds good; "that as organization ascends in complexity, heat disappears and force is conserved, its correlant being the organization; and as complexities break up or organization recedes to similar states, heat reappears and force is set free, its correlant being the dynamics of life." It is apparent, then, that organic structure of definite molecular shape and form must pre-exist as a necessary condition to the performance of any function or the evolution of any of the phenomena of life, or in other words, function is the expression of organic structure behind it.

The performance of every act,—as of the stomach in digestion, the heart in propelling the blood, the liver in

secreting the bile, or the brain in the evolution of thought, is coincident with, and dependent upon, disintegration or change with loss of substance in the molecular arrangement of the organ concerned. Alternations of repair and waste are continually going on in the system; new tissue corresponding in form and function is reproduced, and takes the place of that which has been lost in the performance of function.

So long, therefore, as these processes proceed normally or the equilibrium is maintained we have health; or a system in a physiological condition.

As force is never lost in nature, we have endeavored to show that it is not specially created in the organic world, but exists as a part of the universal force, correlated and stored up in special forms of structure. When forms are lost in the performance of function, the force stored up in them is necessarily set free; the inquiry, then, naturally arises, does the human system, as the vegetable, store up coincident with its decay, the force necessary to the reproduction of its own, and special forms of structure from new material? If so, where and what are the means of this end?

Dr. Z. C. McElroy, of Zanesville, Ohio, has made the discovery and assigned to the lymphatic system this very function;—that, from the products of tissue *debris*, are collected and stored up in the lymph, both the material and force necessary for the perpetuation and reproduction of tissue momentarily wasted in the performance of function. *If future observations and experiments confirm this opinion, it becomes in point of *dignity* inferior to no other single discovery in physiology in the past.

The force stored up, as it presides over forms of structure, must be identical with the so called "*vital force*."

There are many cogent reasons for believing that this office assigned to the lymphatic system is its true one in the body. It unravels so many mysteries in the tangled web of organic life. It renders clearer the correlation of the physical, and so called, "*vital forces*."

*Chicago Medical Journal December, 1873.

Pathologically, all the so called, cachexiae usually attributed to bad descent, point unmistakably to the failure of *force* to carry food up to the condition of healthy structure—hence to the lymph.

These facts and indications clearly point to the conclusion that *hystogenesis* and *hystolysis* are the leading processes of animal life. Constructive and destructive metamorphosis are therefore the “generic totals” of living organisms; all other functions are only factors or subordinates of this totality. The whole process of life, so far as relates to the phenomena evolved and the growth, decay and reproduction of the body, may be reduced to the “two simple physical units of *form* and *motion*.”

These are the ideals or unities into which all the accumulated facts of physiology, pathology and therapeutics may be merged.

The human body viewed thus as a unity—a whole—made so by a sensibility common to all its members, as it were, a mutual consent of material and function to a definite end; it follows, that the present catalogue of diseases, representing so many separate and distinct entities, which lead only to confusion, ought to be abandoned, or so modified as to present the facts to the mind.

A human body in a pathological state can only consist of *lost* forms, and increased or diminished molecular motion, above or below the normal physical standard. Into one or the other of these ideal unities, merge every known pathological condition, or so called disease; and further, if the causation of any or all the so called separate diseases ever has done, or ever can do anything more, or anything less than to destroy forms, retard, accelerate or arrest motion in the molecular structure of the forms comprising a human body, we have so far failed to observe it. In the study of the human body, whether in health or in sickness, it must be borne in mind that, for every dynamic result there must be change of matter; and further, that the system must be consid-

ered as an integer, composed of many factors, that whatever affects one, affects the whole—a factor wiped out, or impaired in function, the total is diminished. Hence, it is evident that the causation of disease must in some manner primarily derange the normal relations of nutrition and oxydation as a totality. Disease, so called, must be considered, not as something added to life, but as something below it, its tendency being to destruction and death; as witnessed in all the so called inflammations, which are nothing more than excessive motion above the normal velocity, with destruction of forms of tissue, as seen in their results, the tendency is to death, their products never attaining to healthy structure. Lost forms constitute the sum total of pathological anatomy. A fever, so called, is only increased destructive metamorphosis above the normal physiological standard, in the molecular structures generally, abnormal heat being the correlative; sometimes, however, attended by loosing or lost forms, as in the glands of peyer in typhoid. The physical units, therefore, of pathology are simply “lost form and motion.”

From these facts and inductions it must be apparent that the present classification of therapeutic agencies into thirty or forty different groups as tonics, anodynes, alternative emenagogues, &c. is unscientific and leads to confusion, as the ideals cannot represent the facts to the mind, they ought therefore to be modified so as to conform to the unities of organic life, to the end that the facts may be correctly represented to the mind. Here, as in pathology, the key-note of the profession should be, fewer classifications and more facts, for all that therapeutic or remedial agent or agencies can do, is:

“1st, to promote or retard nutrition or constructive metamorphosis.

2nd, to promote or retard oxydation or destructive metamorphosis.

3rd, to change or destroy forms of structure.”

Into one or the other, or all three of these, may be

placed every known therapeutic, remedial or hygienic agent or measure whatever. To determine the class to which any agent belongs, it is not sufficient to consider it in the light of present accepted classifications, as stimulant, narcotic, sedative, antispasmodic, &c. for the ideals to which they give rise do not certainly represent the facts to the mind; what an agent actually does, determines the class to which it properly belongs. Thus, if opium relieves pain, which is only excessive motion in nerve tissue, it is a retarder of destructive metamorphosis; if alcohol reduces temperature, and diminishes the products of tissue metamorphosis, it is, as to its greater effect, a retarder of motion in the interest of waste; although it may, to a less extent, retard constructive metamorphosis.

Again veratrum vir, and gelsemium, which are classed as sedatives, act in the same way as the so called stimulants, i. e. retard destructive metamorphosis. The mercurials, iodides and bromides, and the fixed alkalies generally, are some of the agents for promoting destructive metamorphosis.

Quinia, iron, the mineral acids, pepsin, &c. furnish conditions that promote constructive metamorphosis, or nutrition. Caustics of all kinds, mechanical means, as falls, blows, &c. destroy the forms of structure. No remedial agent known can restore a lost form. Our power over form is but to destroy.

Our duty then as physicians, is to deal with motion, either in matter, or by matter; over this our power is great in promoting, retarding, or arresting motion either in the interest of repair, or waste. The limits of this paper will not permit us to enter into the consideration of the various causes of so called diseases, or to give more fully the *modus operandi* of remedial agents; sufficient, however, has been said to indicate pretty clearly, the course to be pursued in the further prosecution of the subject. From the foregoing facts and inductions, we conclude, that the physical and physiological unities of

animal life are simply form and motion ; that pathology consists of lost and loosing forms, with abnormal motion ; that therapeutic agents can do nothing more than to destroy forms, arrest, accelerate or diminish motion in the interest of repair, or waste in any human system.

A recognition by the profession of these, or any other ideals, into which the facts of life may be merged, will at once secure scientific order ; a standard, by which to judge empirical experiences will be established ; the profession will be a unity, disagreements will disappear.

Medicine will emerge from the chaos of superstition, speculation and conjecture, in which it has been floundering, and enter the arena, and take its position among exact sciences ; therapeutics will then have attained a certainty little short of mathematical demonstration.

PRACTICAL OBSERVATIONS IN OPHTHALMOLOGY.

BY J. O. STILSON, A. B. M. D., LATE CLINICAL ASSISTANT TO
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Read before the Mitchell District Medical Society August 7th, 1874.

Inflammation of the cornea—keratitis—may be either acute or subacute, and acute keratitis may be either diffused or circumscribed. Diffused corneitis is characterized by an opaque appearance, hazy or nebulous condition of the cornea either throughout its entire extent or in one or more places near each other. The parts most usually affected at the beginning of the attack, are near the margin, and afterwards the disease spreads involving the more central portions of the cornea. The opaque appearance frequently presents the form of ground glass, caused by a roughening of the external epithelial layer of the cornea. The vessels of the conjuction become injected and tortuous, and sometimes will be seen to en-

croach upon the margin of the cornea and run toward the centre. In addition to the increased size of the conjunctineal vessels the sclerotic ring or zone will be found to be highly injected, and on account of the extreme minuteness of the vessels and their great number, the edge of the sclerotic all around the cornea will present a uniform pinkish appearance.

The amount of vascularity of the sclerotic will vary with the intensity of the attack. In subacute or chronic cases, or in cases due to paralysis of the fifth nerve, where the roughness and abrasion have been brought on by exposure to air, the cornea will be of a dull gray, or lifeless appearance, without much vascularity, but where the disease is acute, and especially where there are several small patches of ulceration throughout the substance of the cornea the ciliary injection will be quite intense and the vascularity increased.

The subjective symptoms are pain, photophobia, dimness of vision and lachrymation.

These subjective symptoms will vary considerably according to the attack and the extent to which the structures are involved. In simple inflammation of the cornea where the epithelial layer is not abraded or ulcerated, and where the minute nerves remain unexposed, or in subacute ulceration, where there has been a paralysis of those branches supplying the sensation to the cornea, there may be a small amount of pain, and the intolerance of light will be correspondingly small, so that the patient will complain mostly of the obscuration of vision due to the hazy cornea. But in acute keratitis, with either circumscribed or phlyctenular ulcers, where supuration has extended through the epithelium, and exposed the minute nerves, the pain will be intense, and the photophobia so great that the patient will bury his head beneath pillows, or seek a dark room, and shun all light. There will also be considerable ciliary, and some superior orbital neuralgia.

Some of the causes of inflammation and ulceration of

the cornea, are defective nutrition or want of assimilation, an impoverished system, cold, or exposure to rough winds, or the contact with the cornea of strong chemicals which are used in the treatment of diseases of the lids, the injudicious use of strong solutions of silver or copper, the contact of foreign bodies with the cornea, or the loss of nutrition to the structure by the paralysis of the nerves in this region.

The danger arising from this affection, are loss of substance, either sufficient to produce perforation of the cornea and prolapse of the iris, or sufficient thinning of the cornea, to produce a bulging outward, from the intra ocular pressure, thereby causing a permanent conical cornea or anterior staphyloma; or a remaining cicatrix, after the healing of the ulcer, which leaves an opacity. When the latter happens to be situated in front of the pupil the vision is impaired unless a portion of the iris is removed, and the pupil enlarged sufficient to allow the rays of light to enter through the clear cornea.

Where ulceration has been deep and the internal layers of the cornea have been involved the pus will either burrow in between the different layers of the cornea—a condition called interstitial keratitis—or some of the pus will get into the anterior chamber and be found to gravitate to the bottom, forming a hypopion. In order to tell whether the pus lies between the layers of the cornea, or in the anterior chamber, we have but to remember that in the latter condition, the pus will have a level, and straight upper margin, and that the line of level will change according as the patient's head is kept still or tilted to one side; while if the pus be between the different layers of the cornea the line of level, if there be any, will not change with the movements of the head.

With regard to the treatment of keratitis it is first necessary to remember, that in nearly every case the patient's general health will be found to be either so low as to constitute the direct cause of the disease, or it will be so much below par that all efforts in treatment will

prove of no avail until the general health is looked after. A tonic course, then, is nearly always advisable, and it is specially indicated if the patient himself feels weak and run down. Preparations of iron and quinine are very valuable adjuvants to the local treatment, and quinine alone or in combination with morphia will be found very beneficial, in the relief of the photophobia, and the neuralgia, which usually follows the course of the branches of the fifth nerve, on the side affected; solutions of atropine, gr. ij to iv, to aquae ʒi should be dropped into the eye every one, two or three hours, to keep the pupils well dilated, and lessen the secretion of the aqueous. The eye should be well protected from light; to accomplish this end a shade or pad should be worn over the eye, or the room darkened during the day. In addition to the local use of atropine, when the ulcer has passed the first stage, and the spreading from the edges has ceased, it is advisable to dust on dry calomel in very fine powder. This gently stimulates the tissues and causes a gradual narrowing from day to day, of the abraded surface, as well as a filling up from the bottom. I have found that in young persons the opacity which is nearly always left after ulcerations, may frequently be prevented in a great measure, and old opacities in children, when not too extensive, may be removed, by the use of solution of soda sulphas ʒj —aquae ʒj . It requires sometimes months to effect any marked change in an old opacity, and if the patient is of adult years the opacity remains, but in children, great improvement seems to follow the above course of treatment. With regard to the treatment of accumulations of pus, either between the layers of the cornea, or in the anterior chamber, one end is to be sought, viz: to get rid of the pus by an evacuation. If the accumulation is beneath the first layer of the cornea, and crowds it out, an oblique incision should be made in such a manner as to secure the evacuation of the pus and at the same time not penetrate with the knife the anterior chamber; but for hy-

popion accumulation of pus in the anterior chamber a paracentesis of the cornea should be made, and allow all the aqueous to flow out together with the pus. The knife should be thrust directly through the cornea, in the seat of the ulcer, rather than at the bottom of the cornea, for the pus will mount up if the paracentesis be made above the centre of the cornea, and flow out with the aqueous. Great care should be taken not to wound the iris which will come forward against the cornea while the aqueous runs out. Remarkable effects sometimes follow a paracentesis. I have seen a violent inflammation of the cornea rapidly subside after the pus and aqueous were evacuated daily for two or three days. Sometimes eight or ten evacuations are made before the chamber is finally allowed to remain filled. Whenever there is pus in the anterior chamber, one should not hesitate to let it out by a puncture. When ulceration of the cornea is complicated with some disease of the lids, it is not advisable to attempt to treat both at once. Even mild astringents are to be avoided until the acute stage of ulceration is past, for they always aggravate the symptoms, and cause an increase of the sloughing surface.

IRITIS.

Iritis, like keratitis, is usually a very painful affection of the eye. It may exist alone or in connection with the disease just described. There are several forms of iritis, which for the most part take their names from the circumstances which combine to cause the disease. Some authors give only one or two varieties, holding that nearly all forms are the result of constitutional infection from syphilis; while others distinguish several forms which are all more or less identical. Four forms are sufficiently well marked to justify distinction, simple: or ideopathic iritis, suppurative or parenchymatous iritis, traumatic iritis and syphilitic iritis. The first form is the most mild in its attack and the shortest in its duration, usually being characterized by slight injection of the globe and

some pain and dread of light, which become more marked upon the application of a solution of atropine to the eye; when it will be observed that lymph has been thrown out and two or three adhesions have been formed between the iris and the lens. The pupil will therefore dilate very irregularly. In suppurative iritis the parenchymatous substance of the iris will be attacked and destructive inflammation will cause masses of pus and lymph to be thrown down, forming the accumulation of pus in the anterior chamber known as hypopion. The traumatic kind may follow cataract operations or wounds of the iris by foreign bodies. Its course and termination is very similar to some of the other forms, and need not here be fully discussed. It may lead to suppuration and destruction, or may form posterior attachments to the lens, by the exudation of lymph around the pupillary margin. Among all the causes which produce the disease perhaps the most frequent is syphilis. Some authors hold that three-fourths of the cases are of this kind, and it is certainly safe to say, that they constitute by far the majority. The symptoms of iritis are of two kinds, subjective, or those which the patient will observe, and objective, those which the surgeon will see. Among the first will be found the most constant, and frequently the first observed, dimness of vision, which is caused by cloudiness or turbidity of the aqueous. Pain is a very frequent though not invariable symptom. It is nearly always termed by the patient neuralgic. Sometimes it is periodic in recurrence and called "*sun pain*." When of this form quinine is a certain and unfailing specific. Pain however is not always present; it may amount only to an uneasy feeling, or itching sensation, or may be most severe and uninduring. Intolerance of light and increased lachrymation are frequently present. Among the objective symptoms are sluggishness or immobility of the pupil, loss of brilliancy in the iris, as well as loss of striation, together with discoloration; the iris presenting a dull hazy or velvety appearance, and not re-

sponding to varying degrees of light. The aqueous is almost always turbid, but the cornea is usually clear. The scleral ring or zone is injected, presenting usually a pinkish appearance. In iritis due to syphilis there will be in addition to these symptoms, the characteristic gummy tumors of syphilis developed upon the iris usually not far from its pupillary margin. These tumors are developed from the fibrous stroma of the iris and are composed of nodular collections of the products of inflammation, containing piquent granules and blood vessels. They are usually known by the name of condylomatous growths.

After iritis has progressed for several days it will usually be found that small beads of plastic lymph have been exuded all around the border of the pupil. These individual exudations increase in size and coalesce, until they have formed around the entire free margin of the pupil a firm union between the posterior portion of the iris and the capsule of the lens. This union is usually first detected upon the use of atropine in the eye, when the pupil will be found to dilate very irregularly if the union be incomplete, and not at all if there be a complete circular adhesion. This condition is called circular, or annular synechia, or exclusion of the pupil. This is not to be confounded with a condition in which the exudation extends across the pupil and forms a block or plug of lymph in the pupil. This is called occlusion, and when complete, always prevents the light from entering the eye, and consequently the sight is proportionately deteriorated. In exclusion although there may be no motion whatever of the iris on account of its attachments, yet there may still be left a small clear space in the pupil through which light may pass, sufficient to allow of distinct vision; while this is not the case in occlusion.

Inflammation of the ciliary body often exists with iritis, constituting a complication termed irido-cyklitis. It is brought about by the inflammation progressing till

it reaches the peripheral portions of the iris, where the fibrous stroma are in contact with and continuous with the ciliary body. When this form is present, the vascular zone or ring will be found very much injected.

In the treatment of this disease several ends are to be sought; first the removal of the cause when it is found to be specific in its nature; second, to keep removed all sources of injury, which may keep up inflammation; third, to diminish the proliferation of tissue cells which go to build up the excrescences which have been described as frequently developing upon the iris, and fourth, to prevent the neoplastic formations, which have been described as synechiae. In handling a syphilitic iritis, the specific treatment for that disease will be found to produce very marked beneficial changes in the condition of the iris. The hypodermic use of the bichloride of mercury is advisable; to be used up to the point of merely showing its effects upon the gums, when the iodide of potash should be used. It is held by the very best authorities, that marked salivation is by no means necessary. Mercury in almost any form, alternated with or given at the same time with iodine, has long been acknowledged to be among the best therapeutic means for the arrest of iritis. In order to remove any cause which may keep up inflammation, we should see that there be no foreign body upon the iris. Oftentimes this may cause the disease and be overlooked. The corneal wound may be quite small and be overlooked, and a fine piece of steel or iron may be lodged upon the iris, causing all the trouble. Hence one cannot be too careful in making close inspection when the case is first seen. The third indication demands a local antiphlogistic measure, which may be accomplished in two ways; first, by the active use of atropine, which if the pupil dilates freely and fully, causes the blood to be driven out of the iris, thereby preventing excessive nutrition and hyperæmia which are necessary to the excessive proliferation of tissue cells; second, by the application of leeches to the inner canthus

of the eye or to the temple, or by the use of cups to the temple. The object to be sought is only to relieve the intense injection and intraocular pressure of the globe. The fourth indication is best obtained by atropine. When the pupil is widely dilated, the edges of the iris, at the pupillary margin float in the aqueous and do not touch the capsule, hence adhesion cannot take place. Oftentimes by the use of the mydriatic, those partial adhesions which have already taken place, will give way, and if not, the irregular dilation of the pupil prevents their farther formation, thus obviating the complete posterior synechia. Astringent collyria are to be avoided, because they are unnecessary. Their presence in the eye does no good, but rather causes increased irritation and consequent hyperæmia of the globe. Hence solutions of silver, zinc, and lead are to be discarded and the eye kept quiet on instillations of atropine, together with the internal use of opium for the severe pain, and the internal use of specifics, with the view of removing the cause of the disease. The usual results of a chronic iritis are, exclusion or occlusion of the pupil. When the acute symptoms have passed away, an artificial pupil may be made by the usual method described in the books as iridectomy.

ESMARCH'S METHOD OF BLOODLESS OPERATIONS.

BY D. H. DOUGAN, M. D.

Read before the Union District Medical Society at Richmond,
Indiana, October 29, 1874.

A little more than a year ago Prof. Esmarch, a surgeon of Keil, in Denmark, announced in a clinical lecture a new method of limiting the loss of blood in surgical operations on the extremities. His method consisted in first applying an elastic bandage very firmly to a point above the seat of the proposed operation, the

bandage being from two to three inches in width and applied in the same manner as a roller bandage, each turn overlapping its predecessor by one-half to two-thirds of its width; a rubber cord one-quarter of an inch in thickness was then drawn two or three times around the limb just above the upper limit of the bandage and secured by a knot or by a hook and chain. Upon removal of the bandage the limb was found completely exsanguined and cutting operations were not attended by the least flow of blood. Upon completion of the operation and removal of the cord the circulation was at once restored to the limb, and a moderate oozing followed from the side of the wound.

An abstract of this lecture was published in a German Journal in September, and a translation appeared in the *London Medical Record* for October 29th, a notice of it having appeared in the same journal on September 27th, and thus in a quiet way was announced a discovery that marks an epoch in the science of surgery second only to that of anaesthesia.

Esmarch's first publication of cases extended over the time between January 1st and August 15th of last year, though before the latter date German surgeons seem to have learned and adopted the method. Billroth published an article on the subject on the 19th of July. As early as September it had been tested in operations in at least four of the London Hospitals, and before the close of the year it had been used in all the hospitals of London and New York, and now, but little more than a year after its announcement, there is scarcely a good sized town in this country where it has not been tried, Krakowizer, of New York, being the first one in the U. S. to make use of it.

The object accomplished by this method, viz: the prevention of hemorrhage, is one that has engaged the attention of surgeons for years; nearly every writer on the subject gives directions to follow some method to limit, as much as possible the loss of blood, such as elevation

of the limbs, stroking it towards the body, &c. Mr. Hilton, of Guy's Hospital, had made a near approach to the present discovery; he had for years, when about to operate on anemic patients followed the plan of bandaging the limb with strong calico and allowing it to remain in an elevated position for a time, and an Italian surgeon, Silvestri, had used the elastic bandage and rubber tubing before Esmarch, and published an account of it in an Italian medical journal in 1871, he being in reality its discoverer, instead of Esmarch. The discovery however had attracted no attention, and was perhaps unknown outside of Italian speaking localities until Esmarch, by the brilliant report of his experience drew the attention of surgeons to it, and it passed at once and almost without a challenge into general use.

The importance of the method may be inferred from the fact that its application extends to all amputations, and to operations of every kind upon the extremities, such as excisions, operations for caries, necrosis, removal of tumors, extraction of foreign bodies, as needles, pieces of glass, &c., and the delegation of arteries. Prof. Muller, of Hurzburg, has lately suggested that in post partum hemorrhage where death is threatened, that the bandage and ligature be applied to each of the extremities, forcing the blood to the vital organs, thus warding off collapse, and giving time for the patient to rally, or if necessary for transfusion to be performed.

In an enumeration of the advantages of this method as applied to operations, the first consideration is the prevention of hemorrhage. It has long been taught that the amount of blood lost bears a certain relation to the convalescence of the patient, those who lose large amounts being more likely to encounter severe and protracted surgical fever. In such patients there is also a greater tendency to erysipelatous and other low forms of inflammation; still further the direct effect of loss of blood is often a serious affair, more especially to victims of railway or other accidents who have lost the last drop of the

precious fluid the system can afford to spare, and to whom the additional loss of but a few ounces or even drachms might be fatal.

To one who has not witnessed an operation under this method it is impossible to convey an idea of the absolute bloodlessness of the tissues when cut, and the satisfaction of the operator must be experienced to be appreciated. Under the old method blood fills the wound and half the time is occupied in sponging; observations must be hurried as the oozing of blood will obscure the veins in a moment; the operation is interrupted at short intervals by the necessity of repeated sponging, and in spite of all, the sense of touch must be relied on for much of the information on which the successive steps of the operation depend. Under Esmarch's method the wound is clean and bloodless as if upon the cadaver; there is no need of sponging, the parts are plainly seen; ample time may be taken for a careful examination, and the operation varied at any stage if necessary. Dispensing with the use of sponges is of importance in hospital practice, as they are believed to be, in spite of careful washing and disinfecting, a frequent means of communicating septic poison.

In addition to the anemia, local anæsthesia is an incidental advantage of the method. In the out patient department of the hospital at Kiel, Prof. Esmarch states that it is resorted to in minor operations, such as amputation of fingers, removal of nails, &c. The anæsthesia is not produced for a few minutes, but the ether spray may be used in addition if desired and its effects be produced almost instantaneously.

The following case from a paper on the subject, by Dr. Brandis, of Aix La Chapelle, which I copy from an article in the *American Journal*, illustrates most happily two great advantages of the plan, viz: the rapid convalescence of the patient, and the better examination of the part operated upon. After detailing a case of sequestrum from the tibia, in which he tried the method and

was surprised at the rapid healing of the wound, he says, "The next case was a resection of the wrist joint, performed in the usual way; the patient did not do well and it became a question of amputation of the forearm. Just at this time he became acquainted with Esmarch's method and believing it would afford facilities in the examination of the diseased joint, he performed a second operation for the removal of diseased bone. The result proved highly satisfactory. The operation was performed easily and all the tendons were preserved uninjured. Only trifling local or general reaction followed the operation, and this is ascribed in great part to the absence of any loss of blood. The patient was a feeble exsanguine man.

He then compares the two operations as performed on the same joint. The first was unsatisfactory, very bloody and followed by severe fever lasting five days, and by moderate fever for three weeks, and also by several abscesses. The second operation lasted an hour and a quarter, produced a very large wound; was accomplished without loss of blood, and resulted in the preservation of a useful hand; the traumatic fever was slight, lasting barely three days, and the patient scarcely suffered anything.

Prof. Esmarch, in his first report, announces 87 cases in which he had used the elastic bandage and cord, of which 27 were amputations and disarticulations, 8 resections, 13 necrosis, &c., since which time, he states in a later report, he has employed the method in 200 additional cases, and that he now entertains a much higher opinion of it than when his first paper was published. Hundreds of surgeons of eminence in Europe and this country have added their testimony of its great value to both patient and surgeon.

It may be asked, if with all the advantages claimed, there are no disadvantages attending the plan. Unfortunately in its use so far, there have occurred cases in which disadvantages have been manifest, though Prof.

Esmarch believes that with proper care they may be avoided. The most annoying accident yet observed has been paralysis of the median and ulnar nerves, following its use upon the upper extremity. Of several cases reported, recovery has followed in all but one. This result Esmarch believes to be due to too tight an application of the rubber cord, and states that it had not occurred in his own cases, but that he had been obliged to watch his assistants to prevent their committing the same error. Prof. Langenback proposes to obviate this danger by using instead of rubber cord an elastic band fastened by pins or a clamp in operations requiring the ligature to be placed around the humerus, thus distributing the pressure over a greater surface. Another writer advises that the same precaution be observed below the knee to guard the peroneal nerve as it winds around the upper part of the fibula. Cases in which there may be danger of septic matters being forced into the circulation may call for deliberation as to whether the bandage should be used or not, and for means to avoid this accident if used, but after all while it can not be denied that danger may exist in such a case it is believed to be more theoretical than actual. Sloughing of flaps occurred in two of the first seven amputations at Guy's Hospital, but as no late cases are reported it is fair to infer that in these it was due to other causes, or resulted from an imperfect manner of applying the method. Thrombosis of the vessels of the part and the detachment of coagula that may have formed in diseased vessels, and consequent embolism are mentioned as among the dangers, but of the thousands of operations in which the method has now been tried, I am not aware that a case of either has occurred.

In Richmond the plan has been employed at least three times, twice by Dr. Weist and once by myself, and it may have been used by others. Dr. Weist's first case was caries of the femur, the lower end of the bone being the seat of the disease. The second case was one of necrosis

of the fibula, necessitating an incision nearly the whole length of the bone. In both cases the operation was unattended by any bleeding, the ensuing fever slight and of short duration and no unpleasant complications were developed. The case operated on by myself was one of caries of the humerus, both the upper and lower end being the seat of the disease, while the intervening portion of the shaft was undergoing necrosis on one or two places. One surgeon relates the great satisfaction in being able to cut down upon and remove an object from the palm of the hand or sole of the foot without the least embarrassment from bleeding parts, whereas it had formerly been one of the most difficult things to do. Another was astonished at the ease and certainty with which he could find and ligate deep seated arteries. Others have been able to change contemplated amputations into exsectinos and thus save useful limbs to their patients.

But the noblest tribute to the great value of the discovery is by Dr. Leesrink, of Hamburg, who in a review of the subject says : " From the day when Ambrose Pare ligatured arteries and no longer cauterized amputation stumps, science received a new impetus. The first joint resection proved the beginning of an entirely new development of operative surgery, and the first bloodless operation will also have disclosed an entirely new point of view with regard to operations on the extremities and serve for the heading of a new chapter in the history of surgery."

Proceedings of Societies.

MITCHELL DISTRICT MEDICAL SOCIETY

Met in Briggs' Hall, Mitchell, Indiana, August 7th, 1874, at 10 o'clock, A. M.

Dr. E. D. Laughlin, Vice President, called the meeting to order. Members present: Drs. J. A. Stillwell, J. O. Stillson, Henry Tingle, B. J. Hon, Royce Davis, H. Dixon, J. B. Larkin, A. F. Berry, E. S. McIntire, J. C. Pearson, W. A. Burton, J. Burton, G. W. Burton, J. L. W. Yost, M. D. Crim, L. A. Crim, A. W. Bare, J. W. Pearson and H. C. Smith.

Received to membership, Drs. J. W. Newland, J. Gardner, D. J. Cummings, J. W. Harlin, Wm. Yandell and R. Walters.

Dr. J. O. Stilson read a paper on Ophthalmology; Dr. John Burton read a paper on Milk Sickness, and Dr. Henry Tingle a paper on Gelseminum. The Society was addressed at 2 H. M., by Prof. T. M. Stevens, of Indianapolis.

Adjourned to meet in Town Hall in Bedford, Sept 18, at 4 o'clock, A. M.

GEO. W. BURTON, Secy.

Editorial.

MALPRACTICE—RESPONSIBILITIES OF SURGEONS AND PHYSICIANS.

Fashion changes, and often in an unaccountable manner. A variation of tastes, desires, etc., causes a reversal from new to old, and *vice versa*; not least apparent is it as regards medical subjects. First among the masses, second with the judiciary, and third with the physicians themselves.

There was a time when, in cases of fractures, disloca-

tions, and injuries of various kinds, that a perfect cure—the restoration of the part to the same condition as before the injury—was not expected, either by the physician or layman; fractures healing with slight deformations, dislocations not fully reduced, and injuries with some degree of contraction in the muscles of the part, were looked upon as the best efforts of surgery. Times changed; the periodical outburst of a change in medical ideas without an adequate increase of knowledge seized upon physicians, the masses were not slow to learn and to seek profit from the quarrels of science and commence at once an onslaught upon every unlucky individual who could be inveigled into assuming responsibilities of surgical cases, until from being a position of profit and honor, holding out prospects to the best scientific energies the professions commanded, it became dangerous in the extreme to accept a case. Instead of money received for services of value given, it became money paid out, reputation injured, and the chances of progress stopped. We would call attention shortly to some points that have been observed by ourself, and also the teaching of authorities as regards the liabilities and rights of the profession in certain cases.

We remember very distinctly a case where the rules of conservative surgery were applied to their full extent—a comminuted compound fracture of both bones of the fore arm by railroad injury, the soft parts as well as the bones were mashed into a pulp for the space of eight or nine inches, embracing nearly the entire shaft of both bones. Amputation was thought of, but conservatism decided upon, the limb treated by being wrapped in wet sections of bandage and laid upon pillows. The treatment continued for several months, suppuration taking place. Finally several pieces of diseased bone were removed. When the proper time came it was supported by means of splints, and after fourteen or sixteen months, the parts partially consolidated, but a false joint remained. Two years afterwards, under every mode of

treatment, the false joint became by ligementous union, immovable enough to permit the use of the arm in a good degree, although the limb was somewhat deformed and weak, and the fingers more or less contracted.

Now no suit was entered, but we see what a chance there was for a hue and cry to be raised by the patient and friends, and what a risk the surgeon encountered in his conservatism with the long time, deformity, and weakened arm.

Two questions might have, and at the present day no doubt would be raised. First—Ought not the arm to have been amputated? Second—Was not the final result in consequence of neglect or want of skill? Such is but a specimen of the risk of conservative surgery. This kind of surgery may be the best for the patient, and the right thing as far as science is concerned, but is it not worse for the surgeon? and can he afford, with popular opposition as it is—the patient being desirous of taking any advantage of the surgeon—to assume such risks?

For the safety of the profession, which presupposes the interests of their patients, in the aggregate, ought not such limbs to be amputated?

Two cases are reported in our authorities. In one amputation was called for, and was performed. Subsequently a financial chance presented itself to the patient or his legal friend. Suit was instituted, the arm disinterred, malpractice alleged in that the arm ought to have been saved. An intelligent jury returned verdict for damages for several thousand. In the other cases treated by the same surgeon, conservative surgery was tried, deformity to a slight degree followed, suit commenced with plea, want of care and diligence. In escaping the whirlpool he ran upon the rock. Disaster was inevitable in either event. Although before eminent and experienced, alarmed and disgusted, he quit the profession where malice, jealousy and desire for gain can instigate, and a faulty popular opinion and a faulty law could accomplish his ruin.

We will mention a case where, although suit was not commenced, it might have been, and, perhaps, with success under some circumstances, and, indeed, was advised by a physician who yet was not able to cast the first stone in innocence. A fracture of the lower end of the radius, the lower fragment drawn in toward the ulna, the upper fragment overriding it. Everything was tried; extension and counter-extension, adduction of the hand, pressure, etc. Nothing availed. Some, no doubt, will imagine they could have succeeded. No one should judge unless he had actually been present. The surgeon who attended was at that time the most eminent in the State, and since none have appeared his superior. The fracture healed with great deformity, and yet without fault upon the part of the surgeon. Still he might have been ruined, at least greatly annoyed. It is for the physician to have common sense views as well as scientific rules, to possess capacity to make allowance for the exceptions that will occur, as well as to follow the written, but rather imperfect word; the treatment of the fractures, as, indeed, the general practice in any department, is not gilt-edged, but full of difficulties unforeseen.

Prof. Hamilton has done more to make clear this truth, as applied to surgery at least, than any other man; his views, however, although more fully expressed, only accord with the old moderns, such as Samuel and Sir Ashley Cooper, and their contemporary, but coming, as they did, at a time when the profession, in a spirit of pride and egotism, had started the fashion that with proper treatment all fractures could be made perfect, and when the people were disposed to hold them to such erroneous doctrines, it acted as a charge of nitro-glycerine in a blast, did more execution at once than numerous picks through a length of time.

The case of Thompson vs. Reagan and Mitchell, now progressing in a neighboring county, where the injury to the limb, healed with some shortening and a divergence to one side, is a case suited to deceive the

populace and to stimulate the energies of the lawyers. It has accomplished both, and we look for nothing but a verdict in favor of the plaintiff. [Since this writing a verdict has been returned for \$4,500 damages.] And yet rightly considered, the deformity was without much, if any, fault upon the part of the defendant, the truth of the case being that the patient used the limb before the perfect ossification of the callous. Absorption due to pressure from use took place more upon one side than the other, gradual in progress, and in consequence healing with deformity. In many cases no one can tell just at what time it is safe for the patient to commence the use of the part. We believe that the deformity in this case arose solely from the cause mentioned. Circumstances often modify abnormal manifestations, interfering with the action of remedies or the healing power of nature with the presumed result of our practice at every step. No man so skilled but he may be frustrated by some hidden obstacle. The same rules will not always hold good in cases that are judged alike. Similarity is not identity. Analogy should guide us rather than true experience that works by undeviating rules.

What then is the remedy? Some will say, "the unity of the profession as to the application of a general rule that deformity of some kind or degree is to be looked for, perfect cures being the exceptions," but this is no true remedy; it places the profession in a false position; it entails upon them a continual fight—a true fight for existence, where indeed if the Darwinian theory of the "survival of the fittest" held true as between the masses and the physician, the fitness would not refer to professional ability, but rather to tact—and who can doubt the end? But even if the unity of the profession could act as the remedy for malpractice suits, such a status is not possible. The principle might be recognized, but the profession possesses no power. Even with some cohesive power self-interest does not always bind them. It is without doubt to their credit that this is so, but their

financial and other interests are liable to suffer in consequence.

The remedy is not in the law as it stands at present. It is true that the principles, the violation of which constitute malpractice, are just and reasonable.

The observance of ordinary skill and diligence is certainly not too much to demand of the physician. They cannot and do not ask for any changes in this respect. No law should lessen their obligations. But admitting all this, we insist that the profession is outraged at the very threshold of the temple, for a true principle of this law is that the average skill is to be judged of according to the chances the physician possesses of becoming skillful. If he is legally debarred from such a chance can he justly be held legally responsible for his want of skill? Certainly not, and yet this is the condition. The sepulchre is a holy place, the body of those who without friends to mourn them are carefully guarded that the hand of science shall not infringe upon their rights, they are laid away like tender infants, guarded from the vandal "doctors," who cannot become skilled without they are amenable to law. If they obtain the means and become so skilled they are likewise criminals. Such a legal position, while it contains the essence of foolishness, is the extreme of wrong. No suit for malpractice should receive the moral support of those who love justice, until this anomalous condition is remedied. We care not how humble, how ignorant, or how criminal in his ignorance the physician, according to law, may be for first: it is unjust to require more than is permitted to be learned, and, second, it is unmanly.

The law corrals the profession, throwing open wide the doors, and inviting all to enter. Tempted, they rush in with their eyes fixed upon the goal beyond, but a barrier is erected, and anon the doors are closed. They are required to advance, but cannot; to return they find no way. The trap has been a sure one, and they suffer for want of foresight.

The profession has duties to perform for itself as well as for the public, and in pursuit of such duties it will not be surprising that they exhaust all resources to remedy the great evil that we have mentioned. If we should suggest a remedy, it would be a law enacted by the present Legislature embracing the following points : First, a limitation should be established, so that no suit for malpractice after an expiration of two years from the commencement of the case by the physician could be instituted. The sword of Damocles should not always threaten us. Second, there should be a limit to the amount that could be recovered, for certainly excessive damages are as repugnant as excessive bail, which is not allowed by the court. Third, a bond for the payment of cost of suit and damages both, in case the suit is not sustained, should be given by the plaintiff.

The first and second clauses are so just and in accordance with the general principles of law, that we leave them without comment.

The third clause may be objected to by some. But if we consider that every suit of this nature injures the practitioner both in purse and reputation, and that, indeed whether the suit is sustained or not, it becomes at once a matter of great importance. It may be true that where the plaintiff is responsible, a counter suit of damages for slander might reimburse the physician ; so that he would not be kept without a remedy. Such was the result in the case of Professor Sayer, of New York, who instituted a suit for injury done his professional reputation, and was awarded the sum of \$30,000. Now, if all who honestly or maliciously commenced action for malpractice were as responsible as his patient, then the profession would desire no more ; but in reality, not one party in ten are worth what the law allows them. If they were, not one in ten of suits would be instituted. Unless a protection such as this mentioned, is furnished, the responsible members of the profession at least will be driven to refuse all cases whether medical or surgical,

occurring in patients not responsible, and although the financially good are not *per se*, professionally so, still we hesitate not to say that the man, irresponsible financially and professionally considered, will have sole charge of the most difficult and dangerous cases. The patients will have to submit to this, for there fortunately is no law compelling the acceptance of a patient. It is not the best thing that could happen; it is not what either patient or physician would desire. But necessity will compel the adoption of such a course. Even if we would, we cannot escape the conclusion. The evil has grown to an enormous proportion, especially in this State. The remedy is simple. A remedy that will protect both physician and patient. If some laws as the above were passed, it would be efficient. The profession ask no more, and those who might then be caught in fault would receive no sympathy from their fellows in case ordinary skill and diligence were not possessed or exercised by them.

Miscellaneous.

WHAT SHALL BE DONE WITH THE HABITUAL DRUNKARD?

BY JAMES F. HIBBARD, M. D.

It is not the intent of this paper to discuss the general subject of intemperance, but to consider that phase of which is denominated habitual drunkenness. And by this phrase is meant that condition of a man wherein he drinks alcoholic beverages to intoxication whenever opportunity offers. Not when opportunity incidentally offers, merely, but who makes opportunity when none of-

fers otherwise. In other words a man is a habitual drunkard when the desire for alcoholic beverages becomes his ruling passion, and the drinking of them his leading practice, and all for the sake of the intoxication they produce.

Disease has been engendered in his body, such that it makes the healthy action of his mind impossible. And this abnormal mental activity is a species of insanity, differing widely from ordinary insanity in its cause and manifestation, but insanity nevertheless. Perhaps it would be better to regard the term insanity as generic, as it really is, and make the aberration under consideration a species, to be designated alcoholic insanity.

An insane person is defined to be one of unsound mind. A sound mind being the standard, it becomes necessary to define it, which for our purpose may be done by saying that a sound mind, as regards any given department of sociology, is one that approximates the average condition of the minds of all the people in a community touching the duty of an individual in that particular department.

Now let us adduce the career of a habitual drunkard, and witness how widely he fails of fulfilling these reasonable responsibilities. There is a married man in this city, an accomplished mechanic, who always had a thrifty establishment until he became an excessive drinker of alcoholic beverages. Then his business ran down, soon utterly faded away, and he became a financial wreck. His family are in rags, and insufficiently fed. He works by fits and starts for another man until he obtains some money, then gets drunk, generally has a fight or two, is arrested and fined; induces some one to go his bail, works again until he earns more money, then starts on a fresh spree. Does this man live up to his responsibilities? If not, he is insane.

Another man allows his wife to do washings to support him and their children, and the little he earns he

spends for drink, and occasionally begs, steals or forces from her, a little of his wife's hard earnings to buy liquor with. Is he fulfilling his reasonable responsibilities according to the standard? If not, he is insane.

We therefore conclude that every man who drinks an excess of alcohol loses his normality, and the most notable feature of this loss is the unsound condition of his mental faculties, and this unsoundness is of the nature of a special phase of insanity.

The resolutions adopted propose to confine a man who is thus insane :

Resolved by the Wayne County (Ind.) Medical Society :

1. That it is the sense of this Society that persons who drink alcoholic beverages to intoxication constantly, or frequently, and while intoxicated waste the means of living for themselves or others, or abuse themselves or others, should be held to be of unsound mind.

2. That a suitable name for this aberration of mind is Alcoholic Insanity.

3. That alcoholic insanity being a special form of disordered intellect, arising out of a specific cause, should be treated in institutions specially prepared for, and strictly confined to, this one class of patients.

4. That institutions for this purpose should have three leading characteristics, to-wit:—first, Restraint; second, Proper Regimen; third, Profitable Industry.

These resolutions were unanimously adopted and ordered to be published

Dr Hays

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MIND AND FORCE IN MEDICINE.

BY JAMES WALTER HERVEY, M. D.

The history of the healing art comes down to us clothed in the wisdom of centuries of patient toil and research.

To-day its votaries are pressing on with the march of deductive inquiry, wresting every practical fact elicited from the different departments of scientific investigation. Turning their backs upon speculation, and groundless theories, with the lamp of experiment they are pushing beyond the old mile-post to join the advance column of inquiry, beyond the bounds of popular erudition. Unfettered by past creeds and systems, the medical profession assumes a larger area of usefulness, and demands a wider range of observation.

We claim that the general laws of mind, matter and force are legitimate departments of medical

research. I doubt not, that some of the questions connected with this application will seem to be irrelevant; but their application will become apparent when all of the grounds taken are carefully scanned, and each position assumed is tested by the standard of reason.

Mind, Force and Matter, are terms which embrace in the wide range of their meaning all of the primary elements of human knowledge. Matter is the building material, Force the builder, and Mind the architect of the physical universe. Mind is God in nature—it directs the forces in all the operations of its varied movements. Without its guidance not a breath is drawn, not an atom moves, for nothing starts unbidden and stalks at random through the realms of nature. Chance directing forces would result in chance seating forms; which would unbalance the harmony of nature's beautiful relations.

Our first, and indeed, our only rational conception of the author of nature, is that of a vast mind grasping creation's plan, and solving the problem of the harmonious relation of all of its parts. Then in detail, passing along the line of creation's wonderful works, he plans its laws of attraction and affinity; of the reason, instinct, peculiarity and destiny of the countless living creatures that should people the earth, the ocean, and the air. Then compounding its elements, designing its forms, balancing its forces, painting its colors, tuning its songs and harmonizing its sounds. Then stepping beyond the sphere of this world, he spreads out eternal space, hangs the sun, moon and stars upon the banner of the heavens, and scatters worlds and systems of worlds along the highway of infinitude.

Work of such magnitude points us to an infinite mind. Mind then, being the architect of creation's plan, force is the builder, the grand executive, the great accomplisher of the Creator's will. Matter is nature's inertia, its passive element, it neither moves nor ceases to move, only

in response to the impulse of the forces. Without it would remain unchanged and unchanging forever.

Matter and force exist in fixed quantites, and are so nearly balanced in the scale of nature that there is no more matter than is required to construct its forms, no more force than is essential to the operation of its movements. They are both indestructable, neither of them can, therefore, be increased or diminished, unless there be a new creation or an annihilation. If we consider the truth that creation was first ideal, the work of eternal mind, (and we cannot evade the issue) we cannot but acknowledge that every thing existed first in thought; that the natural world is the ideal world clothed in form, or that the natural creation was the ideal in the store-house of eternal mind before the morning stars sang together the anthem of creation's dawn, that each created object is but a thought in form, the tangible manifestation of the creator's will.

There is no vast waste of Matter awaiting the pranks of unbridled and erratic forces to shape it and move it without plan, or restraint. As there is no more matter than is required to construct forms and essential conditions of life, growth and decay, it can only exist in one of these forms or conditions. There can, therefore, be no object or creature not included in the ideal creation, without a new creation of matter to give it tangability.

The ideal creation then is the mind force, rather the directing agency of creation. This ideal force or influence is ever present—it is that influence by which each creature, every object in nature first received its form, assumed its identity, and took its place among its fellow creatures. By this ever acting influence each object is ever unerringly reproduced and the identity of each forever maintained. It is true that many changes may be wrought in animal creation by the influence of

surroundings, but no existing form can ever develop into something else, until God repeals his plan or alters his purpose. I cannot, therefore, omit saying at this place that Prof. Darwin entertains a gigantic misapprehension in the advocacy of the development theory. The great mistake with some of the learned men and authors of this age is, that man and other living creatures comes into existence, grows to maturity and age by organic force alone. That the parent imparts to the germ the power to produce an organization, after the pattern of the original with all the peculiarities, disposition, idiosyncracies thereof. I apprehend, however that we have out-grown this opinion and that we have moved on to a higher stand point in enlightened opinion.

Dr. Carpenter, one of the most learned physiologists of the day, refers to this view of the subject as one of the most absurd that ever darkened the path of scientific inquiry. As his opinion is valuable on any subject of natural science, and as in this instance it is a clear vindication of the position we assume, we will quote it in full. On page 412 of the "Correlation and conservation of the vital and physical forces," he uses the following language:

"When we look carefully into the question, how well we find that what the germ really supplies is not the force, but the directing agency. Thus rather resembling the control exercised by the superintendent builder, who is charged with working out the design of the architect, than the bodily force of the workman who labors under his guidance in the construction of the fabric."

"The germ then imparts no force in the development of young organization, it but directs the forces. It is the embodiment of that ideal directing agency that was imparted to every creature of the animate creation. When the Creator said, "Let the Earth bring forth its herbs, its grass, its fruit and its trees, each after its kind,

and whose seed is in itself. And let the water bring forth its moving creatures, and let the fowls that fly above the Earth bring forth each after its kind, etc.”

This quotation from Dr. Carpenter already vindicates the truth of a mind force in nature, or a directing agency separate and distinct from acting forces. That this agency controls or directs all of life's movements, seated at the helm of nature, it counts her atoms, measures her forces, and directs every change that takes place in the organic or inorganic world. That this world of ours with its countless beauties and ever varying loveliness, is not the work of unconcious force alone, but that an intelligence presides over all of its wonderful varied aspects. This opinion is entertained and strongly advocated by Prof. Agassiz, among the highest authority known to the scientific world. We, therefore, gladly bring forward a brief but clear and explicit statement made by their great naturalist—This is the quotation:

“I believe that all of these correspondencies between the different aspects of animal life, are the manifestations of mind acting conciously with intention toward one object from beginning to end. This view is in accordance with the workings of our minds; it is an instructive recognition of mental force with which our own is akin manifesting itself in nature. For this reason more than any other, perhaps, do I hold that this world of ours is not the result of the action of unconcious organic force, but the work of an intelligent, concious power.”

This beautiful thought vindicates God's Authorship and government of nature—of an ever present though unseen influence governing all of his works, not only in the revolution of planets, and the march of worlds through space, not only in unconcious masses of inorganic matter, but in every movement of life's mysterious process.

The human system is no exception to the guiding or directing agency of mind over its movements. The lightning that shivers the rock, the storm that strews the

ocean's wreck, are not chance moves upon the checker-board of unfolding events, they represent mind and accomplish a purpose. So in the erratic movements of *chorea*, the struggles of the epileptic, rigid contractions of *tetanus*, the ravings of the lunatic.

These actions and conditions are the inevitable results of impressions, the response of the organization to the decrees of creative wisdom, and the irritability of the muscles obey the excitability of the nerves. The human system is not abandoned to chance in disease, nor is nature forever convulsed by the transient breath of the storm. The laws of mind and force are well defined and most beautifully illustrated in the human organization, for in it we witness the influence of finite and infinite mind. Here we find two sets of motion, the voluntary and involuntary, excited by voluntary nerve influence, and involuntary nerve agency. The voluntary system is under the direction of finite mind and respond to the human will. The involuntary or organic life movements, are responsible to infinite mind agency, exercised through the organization, and are beyond the reach of the human will. The involuntary life movements or the organic forces being the conservators of our health, a study of the manner by which, and the means through which these movements are impressed and influenced by morbid, as well as remedial agents is of the highest importance to the medical man.

Upon these movements disease usually make their attack and manifest their influence, and through them, remedies must reach diseases and restore the moral condition of the system. The action of medicines upon the tissues and function, and the influence of direct and reflex nervous impressions upon disease, opens a wide field of experimental research. Take for instance the action of restorative medicines in the case of disease. It embraces a wider range of practical utility than any

other within the scope of medical literature, not only as an abstract question in therapeutics, but because it furnishes a key to the solution of many other questions connected with the application of remedial agents to abnormal conditions. Upon this question much has already accumulated, many conflicting opinions, many as I conceive, groundless theories have been brought forward, each has had a prominent place to prance upon the stage, and each have had their votaries to bring it forth. We therefore approach this subject with diffidence. We can only hope to be able to point out the way for the guidance of those who may wish to follow us in the direction we shall pursue in the exploration of this vast field of inquiry. We can only hope to approximate a solution of this question by a guarded use of terms now in popular use, and clear understanding of the meaning each word shall express. Also by giving a clear conception of the separate office as well as the physiological relation of *muscle* and *nerve*.

First then with reference to terms, such as vital forces, vital energies, nervous force, nervous energies, nerve tonics, nerve restoratives, muscular vigor and nervous vigor, etc. These terms are strown along the high-way of medical literature, they have become popularized around every hearth side in the land by their use in the advertisements of proprietary medicine vendors, etc., by their entering into the impudent bombast of unqualified and unprincipled pretenders. We must, therefore, be permitted to object to the unbounded latitude given these terms. Some one will at once object to this exception and range it with a quibble upon words, but we must in the intelligent comprehension of any subject know what is meant by each word or illustration used.

With the word force, says Crabb, is connected the idea of capability, with the word energy the idea of activity, and the word vigor the idea of health. In the

physiological and pathological application of these terms no better definition can be given them. Vital means life, therefore, vital forces can only mean life forces; force, physiologically, is but an element of motion not a function or an independent operator. The term force, therefore, is not applicable to the nerves as they neither generate force or are the receptacles thereof, they are but excitors of force, or as the idea is generally *expressed*, their office is that of exciting the irritability of the muscles. Excite is to call out from a state of rest—irritate, to make energy, &c.

The term energy expressing the idea of activity, has no separate application either to muscle or nerve, as neither of them can, separated, act. It, therefore, expresses the joint office of muscle and nerve, and has no anatomical application whatever. The term vigor has neither an anatomical or a pathological application as it but expresses a possessive or a negative condition of life's movements, to-wit: with or without vigor, which can only mean health or disease, and should be used to express a positive or comparative state of the health of the system, or any part or function thereof. The heart may act vigorously and yet the pulse may be too frequent or too slow; the cardiac contractions are healthy, but the circulation is in some particulars deranged, &c.

The term nervous tonics can not be applied to any class of remedies or to any particular remedy, nor is there any condition of the nervous system that could rationally receive tonics. Tonic means a tone giver, and is, therefore, only applicable to tissues capable of contracting, of which the nerves are wholly destitute. The term restorative, may be applied to any remedy that will restore normal conditions or arrest abnormal action and restore abnormal conditions to the normal. In this sense all remedies are *restoratives*.

This brings us to the second item specified in this con-

nection, to-wit: The physiological relation of the muscular and the nervous system, and the separate office of each in life's process and movements. The office that these two divisions of the human organization performs in life's process, is quite as different and equally as distinct as that of the engine and the engineer, the telegraph and the operator, and the battery and its conductors. Their relation the one to the other is indeed, very similar thereto.

The muscles furnish the force, the nerves direct movements and controls its motions. They represent the mind agency in the organic movements, while the muscles supply the power by which that agency exercises its control. The nervous system constitute the intelligence that presides over all those nice and delicate movements of life that defy finite comprehension. It is susceptible of every impression, and with wonderful promptness responds to every demand. It contracts the heart and controls its movements, it directs the current of the blood in every vessel, regulates the velocity as well as the quantity in each by the contraction or relaxation of delicate muscular bands or some vantage of contractile tissue with which every implement of the circulatory apparatus is supplied. Such being the office in part of the nervous system it must be apparent to every observer that it is the channel through which morbid conditions must be reached, and abnormal action controlled.

Life's motions like those in all nature, are governed by the power applied, and the resistance to overcome. Another important fact attaches to these motions, that is, that arrested motion is transformed into heat. This may be proved in nature in a thousand ways: the fall of the blacksmith's hammer upon the cold steel soon heats it, and that heat increases with the force and frequency of each blow; the arrested bullet involves heat, the ar-

rest of electricity sets the object which arrested its motion on fire. So arrested capillary motion is transformed into heat, as in inflammation, the natural motion of the capillaries is lessened, the caliber of the vessels enlarged and their coats relaxed. As a consequence of this state, the heat of the part inflamed is increased, swelling ensues, pain follows by pressure upon the nerves. There is also an increased growth of bioplasm. What restorative action will meet this state of conditions? This must be determined like all rational medications, by a reference to our therapeutics, and our knowledge of the action of remedies. Let us take alcohol, but please be not angry with us for this choice, we must test facts by facts, the action, and of restoratives by our knowledge of the condition of the part or parts to be restored, or how shall we know whether it will meet the medications or not.

Alcohol increases the force of the cardiac contractions, increases the excitability of the vassomotor nerves distributed to the capillary circulation, consequently lessens the caliber of the vessels and excelerates their motion and quickens the current of the circulation through them, reduces the temperature and checks the growth of bioplasm. In addition to these enumerated functional effects, it acts upon the structure by hardening the cell wall and increasing the solidity of tissue and lessening the permeability thereof. This being the action of alcohol on the system, it must meet some of the prominent indications in inflammation, not by increasing or diminishing the vital force, not as a tonic or nutritive, for it is neither. It acts upon the directing and controlling agency of the system, it lessens the heat by increasing the force of the contractions of the contracted tissue of the capillaries, which uses up by motion the morbid heat that had resulted from an arrest of their accustomed motion. By increasing the action of the capillary cir-

culatation it reduces the quality of fluid therein, and lessens the size of the vessels, thereby the swelling is reduced which takes the pressure off of the nerves and removes the pain. This is the way alcohol acts in restoring these morbid conditions. I don't contend that alcohol is a specific in the treatment of inflammation and fever, or that it is applicable to every stage and condition thereof, but that it meets the prominent indications in these affections.

I am glad that I am not alone in this opinion, to which I have been led in the investigation of this subject. Since writing this paper, in looking over the field of medical literature, I find that Dr. Lyonel S. Beale, of Kings College, London, introduces in the January number of *Braithwaits' Retrospect*, a very able, and I think an unanswerable argument in support of alcohol in the treatment of fevers and inflammations. We should be glad to introduce other illustrations of restorative medicines, especially with reference to the rational *modus operandi* of certain restoratives in the treatment of cerebro-spinal meningitis, as this disease was philosophically referred to by Dr. Todd, of Danville, in the August number of the *Indiana Journal of Medicine*. I should also like to more fully vindicate the applicability of the general laws of mind and force, and the laws of science generally to the healing art, but this paper is now too long, and the further consideration of this interesting inquiry, must be deferred to another time.

CORRELATION AND CONSERVATION OF FORCES.

BY G. N. DUZAN, M. D., ZIONSVILLE, IND.

The depth of erudition and the professional *status* of the physician of the present day, is determined by the

facility of expression, and elegance of diction which he displays, in communicating his knowledge of the "Correlation and Conservation of Forces."

Since the question of the unity and persistence of force was first presented to our inquiring faculties, we have had a growing desire to communicate to the medical fraternity what we know concerning it. Since reading a communication, published in the February number of the *Indiana Journal of Medicine*, by Dr. Warford, the title of which is, "An Attempt to Utilize the Facts of Organic Life"—new life has been infused into this desire, and by transformation through successive steps—a process denominated Evolution, by Herbert Spencer—the desire became irresistible. How this desire originated, whether *de novo*; by *generatio equivoca*, or whether it is the correlative of a pre-existing equivalent [force, are questions, the solution of which would lead us into the realm of transcendentalism.

If, while attempting to communicate what we know concerning the doctrine of the correlation and conservation of forces, we unwittingly disclose the fact that we know absolutely nothing about it, we will solace ourselves with the reflection that we are only a little more unfortunate than many writers who have preceded us. We cannot intelligibly express what we know, and clearly indicate what we *don't* know, about this subject without liberal references to recent postulates of science and philosophy.

MATTER, MOTION AND FORCE.

"Matter and Motion, as we know them, are different manifestations of Force."—Herbert Spencer, first Principles, page, 235. "While the general agencies of change with which it is the business of science to deal—heat, light, electricity, magnetism and affinity, have been

formerly regarded as kinds of matter, imponderable elements, these notions must now be regarded as outgrown and abandoned, and in their place we have an order of purely immaterial forces.”—Introduction to Youmans’s Correlation and Conservation of Forces, page xii. “For the validity of the proofs given that Matter is indestructible and Motion continuous, really depends upon the proof that Force is persistent.”—Herbert Spencer, first principles, page, 251. “When nature was tested in the chemist’s scale-pan, it was first found that never an atom is created or destroyed; that though matter changes form with protean facility, traversing a thousand cycles of change, vanishing and reappearing incessantly, yet it never wears out or lapses into nothing. The present age will be memorable in the history of science for having demonstrated that the same great principle applies also to Forces.”—Introduction to Youmans’s Correlation and Conservation of Forces, page, xii.

“Where forces had apparantly ended in nothing, and had been carelessly supposed to have actually done so, instrumental observation proved that effects had in every instance been produced; the forces reappearing in new shapes.”—First Principles, page, 259. “Visible motion is relative change of position in space.”—Grove, (Youmans,) page, 25. “Motion, then, will directly produce, *heat and electricity*, and electricity, being produced by it, will produce *magnetism*. Light is readily produced by motion.”—Grove, (Youmans,) page, 37. “The dynamical theory, or, as it is sometimes called, the mechanical theory, of heat, discards the idea of materiality as applied to heat. The supporters of this theory do not believe heat to be matter, but an accident or condition of matter, namely, *a motion of its ultimate particles*.”—Tyndall, Heat as a mode of motion, page, 24. “The term force, although used in a different sense by different authors, in its limited sense may be defined as that

which produces or resists motion.”—Grove, (Youmans,) page, 19.

Correlation—“The term correlation strictly interpreted means a necessary mutual or reciprocal dependence of two ideas, inseparable even in mental conception.”—Grove, page, 183. “The mutual convertibility of the various forms of forces is called correlation.”—LeConte, page, 187.

Let us see if we can, by any process, sythetical or analytical, educe any new truths from the postulates of science and philosophy, to which we have just referred. The premises, from which the doctrine of the correlation and conservation of forces, is a deduction, are, First, the existence *per se* of forces, independent of the bodies from which they proceed, and upon which they act:—Second, forces, like matter, can neither be created nor annihilated, but are conserved through “a thousand cycles of change, vanishing and reappearing incessantly.”

What evidence have we, to establish the validity of the premisses? Prof. Youmans informs us that the so-called forces, heat, light, electricity, magnetism, and affinity are not “kinds of matter, imponderable elements,” but, that they are purely immaterial forces. Grove says, “Force is that which produces or resists motion.” Force, then, as defined by Youmans, and designated, as the cause of motion, by Grove, is a metaphysical entity, an existence *per se*. We cannot conceive of motion apart from matter that *moves*. Hence motion is not an entity, but, is simply, a property or condition of matter; and motion existing apart from matter, as a metaphysical entity, is inconceivable. Prof. Tyndall informs us that heat, which is one of the so-called immaterial forces, is, “but an accident or property of matter, namely, *a mode of motion of its ultimate particles*.” As heat is “an accident or condition of matter,” and, also, the correlative of light, electricity, magnetism, and affinity; then it follows as

an inevitable corollary, that force is not an entity *per se*—a metaphysical and non-substantive existence, but is a property or condition of matter. As motion, apart from matter, is inconceivable; so is force, which is the correlative of motion, also, inconceivable apart from matter. Let any one attempt to conceive of extension apart from something which is extended, or resistance without something which offers resistance, or motion apart from something which is changing its position in space, and he will be convinced that he can never know properties without knowing matter, just as he cannot know matter without knowing properties. As force is a condition or property of matter, we cannot conceive of it, as an existence *per se*, or, as a non-substantive entity. Force without matter is a non-entity, “neither rationally cogitable nor empirically existing” (Drossbach.) As Buchner remarked, “That which cannot be separated cannot subsist separately.”

It is a law, which will not admit of variation, that force can be manifested only in matter. “Matter,” says Herbert Spencer, “is known to us, only, through its manifestations of force.” It follows then, that force, as an existence *per se*, is just what we have always conceived it to be—*nothing*! “Force is that which produces or arrests motion.”—Grove. “Heat, light electricity, magnetism, and affinity are not imponderable elements in distinction from other elements; these notions must be regarded as outgrown and abandoned and in their places we have an order of purely immaterial forces.”—Youmans. “Heat is a mode of motion.”—Tyndall. “Motion is a body changing its position.”—Spencer. “Motion produces heat.”—Grove.

Here we find not only ambiguity of language, but execrable logic. Force is the cause of motion. Heat is an immaterial force which causes motion. Motion causes heat! First, we have heat as *causal*, producing motion, and motion as *phenomenal*, the effect of heat. Second, we

have motion as *causal*, producing heat, and heat as *phenomenal*, the effect of motion. Finally, we have the moving body as the correlative of, not only the force which moves it, but also of the force which arrests its motion. From this ambiguity of language, and worse ambiguity in logic, we turn away in despair, and by interrogating nature, instead of consciousness, we are enabled to resolve the fact of the phenomenal world, into the ultimates, *matter* and *motion*. Matter without properties—and properties are but different modes of motion, or effects of motion—is a nonentity; but matter and its *properties* include everything that is cognizable by reason.

Nothing justifies us in assuming that heat, light, electricity, magnetism, and affinity are immaterial forces, existing independent of the bodies from which they proceed, and upon which they act. They are properties of, and are inseparable from, matter, in which they are manifested; they are “*modes of motion of the ultimate particles of matter.*” Motion is the only cause of motion, that we can think of, and we cannot think of anything that motion can be converted into, but motion. Matter in a state of relative inertia, would never begin to move, unless impelled by some moving body, or moving molecules. When a body ceases to move, its motion is not annihilated, but it is propagated indefinitely, in the form of molecular motion.

When two bodies approach each other with a velocity in the direct ratio of their masses, and in the inverse ratio of the square of the distance, their motion is not caused by an immaterial force, or metaphysical entity, interposed between them, neither is their motion self-originated, but their motion is derived from pre-existing equivalent motion. We are not at liberty to say that their motion originated *de novo*, or that when the bodies come together, their motion is annihilated. The aggregate motion of the two bodies, when the bodies collide,

is continued in the form of heat or molecular motion. When the aggregate motion disappears, an equivalent molecular motion appears, and molecular motion, when apparently annihilated, reappears in the form of bodily motion. Thus motion can neither be created nor destroyed; though continued through endless mutations, its total quantity in the universe remains invariably constant. The phenomenon of two bodies approaching each other, the motion of which is, in the direct ratio of their masses, and in the inverse ratio of the square of their distance; the motion manifested is derived from, and is the equivalent of motion lost, by some other moving matter, or matter that has moved. Concerning this Sir. Isaac Newton says, "That gravity should be innate, inherent, and essential to matter, so that one body may act upon another at a distance through *vacuum*, without the mediation of anything else, by and through which their action and force may be conveyed from one to another, is to me so great an absurdity that I believe that no man who has in philosophical matters a competent faculty of thinking, can ever fall into it. Gravity must be caused by an agent, acting constantly according to certain laws, but whether this agent be material or immaterial, I have left to the consideration of my readers."

What is the nature of the agent that impels bodies toward each other according to the law of gravitation? Is it material or immaterial? We have demonstrated, or we think that we have, that an immaterial force or an immaterial agent is a nonentity, not rationally cogitable, therefore the cause of gravitation must be a material agent. But what is the material agent the motion of which is the correlative of gravitation? "A substance to which the name ether has been given is diffused through the entire universe. * * *

It becomes evident that bodies do not owe their gravity to an intrinsic force, but to the pressure of the medium

in which they are immersed. The motion of heavy bodies would no longer appear to us other than as a transformation of the etherial motions, and gravity, henceforth, enters into that majestic unity to which we have conducted all physical forces. Thus heat, light, electricity, magnetism, cohesion, chemical affinity, gravity, are all resolved into the idea of motion." Saigey, *Unity of Natural Phenomena*, page, 37-8.

Heat, light, electricity, magnetism, chemical affinity, cohesion, and gravity, are modes of motion, and according to fixed relations, are converted into one another; some of these relations are known, but by far the greater number of which is, as yet, unknown. We have demonstrated, satisfactorily to *our own mind* at least, that immaterial forces as existences *per se*, are not rationally cognizable, therefore, the first, or major premiss of the syllogism—of which the correlation and conservation of forces is the conclusion—is false, and the conclusion, also, is false. Instead of the correlation and conservation of *immaterial forces*, may be observed a continuity and conservation of *motions*, through endless cycles of mutation and correlation.

The logical parentage of the metaphysical conception of forces, is that strong tendency of the human *mind*, by which metaphysical abstractions are made into immaterial entities, an abstraction from the concrete is made into an entity; the attribute *motion* has, in some miraculous manner, shaken off its substance, and it has been converted into an immaterial entity called *force*. The abstraction, that has been exalted to the dignity of designating an "agent of change" in matter, is then allowed to exercise tyrannical sway over the understanding, and is, then, no longer rationally cogitable.

VITAL FORCE.

"Force is the cause of motion."—Grove. "There is one wonderful condition of matter, perhaps its only true indication, namely, inertia."—Faraday, (Youmans,) page,

368. "Food carries in *potential* energy, or *force locked up*, into the body, and oxygen, in a way similar to one outside the body, liberates it every where in the organism in the form of heat.—Jewell, Meth't Quarterly Review, 1872. What a wonderful thing is force! It is the "cause of motion." "Matter is inert." Force is "*locked up*" and "*carried*" into the body by food. Oxygen liberates it everywhere in the organism in the form of heat." How kind and patronizing it is, for force, which is the *active* agent, and the cause of motion, to quietly allow itself to be "*locked up*" and "*carried*" into the body by food, which is *inert* matter! How commendable its behavior, while under restraint, waiting patiently for oxygen, which is also *inert* matter, to come along and *unlock* it in the form of heat! Dr. Jewell does not tell us, what form of force it was, before it was "*locked up*," but when *unlocked*, it "turns up" heat.

We suppose—having no positive knowledge concerning it—that when pork is used as food, that it is hog force, which is carried in "*potential* energy, or *force locked up*," in the body; and by some inscrutable process of correlation and conservation of forces, it is converted into human vital force; after which "oxygen, in a way similar to one outside the body, liberates it in the form of heat." How considerate for, "oxygen to act, in the body, in a way similar to one outside" of it! What a remarkable instance of scientific thimble-rigging!

What is it that food carries in *potential* energy, or "*force locked up*," in the body? Nothing that we can conceive of, more than the elements of which food is composed, and which the organism requires.

(To be Continued.)

A CASE OF PERITONITIS,
Complicated with Enteritis, followed by Peritoneal Abscess.

BY L. B. WILLIAMS, M. D., DEEDSVILLE, IND.

January 30. Was called to see Rosania Deeds, aged 11 years. Previous health tolerably good. Attended school on the 29th, and in the afternoon took a chill, which was soon followed by violent pains in the umbilical and hypogastric regions, also vomiting and purging. Found the patient in a collapsed state; pulse 120, small and wiry; tongue coated with a white fur, also very dry; an urgent desire to drink. Diagnosis, peritonitis, complicated with enteritis. Prescribed calomel gr. i, bismuth sub. nit. gr. iii, sulph. morphia gr. $\frac{1}{4}$, mix. This powder to be repeated every two hours until eight were given, or vomiting ceased. Ordered simpisms to be placed over the stomach and bowels and on the feet.

31st. Found that my patient had ceased vomiting, but continued purging, followed by severe pains. Pulse about as before, only a little stronger; tongue coated as before, but not quite so dry. Prescribed pulv. opii. gr. $\frac{1}{2}$, bismuth sub. nit. gr. 4, sulph. quinia gr. $\frac{1}{2}$, every three hours, or two hours, if the case should require it by continued action of the bowels. Applied a cantharidal plaster seven by six inches over the umbilical region.

February 1. Saw patient again. There had not been an evacuation of the bowels since the day before; pulse very weak, and 140. Continued the above treatment, with the addition of one tablespoonful of whisky every four hours.

2d. Patient better; pulse 112, strong and regular. Met Dr. Coe of Mexico in consultation. Prescribed gutt. 8 of turpentine in emulsion every four hours; the stimulant to be given in tablespoonful doses as before. Ordered the opiate powders to be given just often enough to keep the patient quiet.

4th. Patient's symptoms all favorable; treatment continued. Patient had taken some food.

6th. Patient continued to improve. Discontinued the opium; prescribed a laxative every four hours until the bowels should move. Continued the turpentine and whisky.

7th. There had been an evacuation of the bowels; pulse natural; symptoms all favorable. The turpentine and whisky continued as before.

9th. Patient convalescing; appetite good. Whisky was all that was prescribed, and in tablespoonful doses three times per day before meals. Patient discharged.

19th. Was called to see her again. Found her very much emaciated; complained of sharp lancinating pains in the umbilical region. Diagnosed peritoneal abscess. Told her parents that it would discharge near the umbilicus. Ordered warm poultices to be kept applied until it could be lanced; prescribed cod liver oil and whisky, aa. $\mathfrak{z}\text{ii}$, three times per day before meals.

21st. Abscess opened by nature's process. Think there was at least three quarts of pus discharged at this time, and continued to discharge at intervals for sixteen weeks. At the beginning of the fourth week, with the bistoury I made the opening large enough to admit the nozzle of a syringe, and ordered glycerine, pure water aa. $\mathfrak{z}\text{ii}$, acid tanic gr. iii , acid carbolie gtt. x . M. Inject once a day. Continued the oil and whisky, with the addition of tinct. of iron gtt. 20, three times a day; continued the treatment for eight weeks; patient reduced to a mere skeleton.

October 26. Patient at this time enjoying good health and looks well.

Reviews.

TRANSACTIONS OF THE INDIANA STATE MEDICAL SOCIETY, 1874. Twenty-first Annual Session, held at Indianapolis.

This is a work of 218 pages; the typographical work well executed, with some few errors, but not *one hundred* as was found in that of the year 1873; paper good, and what we particularly admire is the binding—not limp and worthless, a suitable covering to a worseless book—but a good substantial binding, that will preserve the work, and inspire some degree of respect in those who own it. No one cares so much, except as a philanthropist, for that which has a worthless appearance—no dignity or beauty about it. Even a handsome article will receive more care oftentimes than a useful one—both combined is a prize not to be despised. Dr. Woolen, the efficient Secretary, superintended the issuing of the volume. The officers for 1874-5 are: E. R. Haughton, M. D., President; Wm. B. Lyons, M. D., Vice President; G. V. Woolen, M. D., Secretary; A. W. Davis, M. D., Assistant Secretary; J. H. Woodburn, M. D., Treasurer; J. K. Bigelow, M. D., Librarian.

First comes the President's Address, Dr. Wilson Hobbs. He takes for his subject stimulants and narcotics, and especially treats of alcohol. The following extract gives his views as to its action, a very true one as we think:

“In the healthy man there is but a very small per cent. of the alcohol taken, in any manner consumed. It enters the stomach as dilute alcohol; it passes into the blood vessels and mixes with the blood as diluted alcohol still further diluted; it applies itself to all the parts it affects as an irritant or spur, and is seized hold of by the resident forces of the living system, the conservators of the health of the body, and cast out of doors still alcohol. The small part not ejected is consumed by its union with oxygen, and is converted into carbonic acid and water. To this extent it has added to the systemic fuel. While in the blood, it furnished no material for

growth or repair; it checked the normal progress of tissue metamorphosis; it created neither substance nor force; it only temporarily accelerated the velocity of the animal mechanism at the expense of great wear and tear, which, when the stranger is gone, drops to a correspondingly slow motion."

And thus:—

"Scientific medicine teaches that alcohol is a means of cure of great value, but that the limits of its profitable use are quite circumscribed; that in states of health it is not a food, nor is it an allowable luxury, but when not a medicine it is a poison.

"The profession of medicine is made up of all such as practice for the cure of the sick; and in its ranks are hordes of charlatans and pretenders, through whose false teaching and practice the people have been greatly, but very willingly, misled, and the evils of alcoholic poisoning most fearfully encouraged and promoted; but the honest and intelligent men, who administer the science of medicine, understand the place and power of alcohol, and have been, and are now prescribing it only as a medicine and in its proper place."

"Report on Medical History of Indiana," by the editor of this Journal, comes next. The general form of the report is by separate articles by various gentlemen of the profession throughout the State. Besides the chairman, Dr. Higday, of Laporte, Dr. Fletcher, of Indianapolis, Dr. Cornett, of Madison, Dr. Patton, of Vincennes, Dr. Read, of Terre Haute, Dr. Ayres, of Fort Wayne, Drs. Pugh, Moffat and Sexton, of Rushville, Dr. Gilbert, of Kendallville, and Dr. J. W. Hervey, of Indianapolis, present their quota of facts, many of them of interest, and have thus been restored from oblivion. We have only space to mention that Dr. Read, Dr. Patton and Dr. Cornett gives us much of interest as to the early history of the State. Dr. Cornett says:

"I came to the State of Indiana in the spring of 1824 for the purpose of practicing medicine, and located temporarily in the county of Dearborn. In the spring of 1825 I moved to Versailles, Ripley county, where most

of my professional life has been spent. On coming into the State I was informed that the law required me to be licensed to practice, by the Society of the District in which I lived, otherwise I would be indicted and fined. Each Judicial constituted a Medical District, and there was a State Medical Society made up of delegates elected annually by the District Societies. I called on the Censors of the society, satisfied them in regard to my qualifications, and received from them a permit to practice till the next meeting of the society, which was held at Lawrenceburg. At the meeting of the society I was admitted to membership and received a diploma according to law. At that meeting, or the next, I have forgotten which, I was elected a delegate to represent the society at the next meeting of the State Society to be held at Indianapolis. I prepared a professional essay and started for Indianapolis on horseback, and accomplished the journey (sixty-five miles) in three days of hard travel through deep mud and over broken causeways. The President of the State Society was Dr. Samuel Grant Mitchell, of Indianapolis, an elderly gentleman, somewhat corpulent and short of breath from asthma perhaps. The Society met in Dr. Mitchell's office. There were but few in attendance. Their names were as follows, viz: Drs. Mitchell, Dunlap, Coe and Mothershead, of Indianapolis; Dr. Sexton, of Rushville; Dr. Bell, of Shelbyville, and myself from Versailles. Dr. Mothershead was then a very young man, and a partner to Dr. Mitchell."

This was in the year 1826.

In the report of Dr. Patton occurs the following:

"The first medical society organized in Vincennes was under a charter granted by the State Legislature in the year 1835. This society had the authority to give diplomas to those who submitted to a satisfactory examination by a board of medical censors, which, in that early day, was regarded with almost as much favor as a diploma from a medical college."

And in that of Dr. Read the following:

"In the year 1817, the next year after the settlement of Terre Haute, and five years before that of Indianapolis, a medical society was formed at Vincennes, em-

bracing in territory this, and the county of Parke north of us, or a distance north of Vincennes of ninety miles."

The chairman did not at the time of compiling the reports, nor yet, know how to reconcile the two statements. The first societies could not have been in 1835 and 1817 both. We are disposed to think that Dr. Patton's date was accidentally incorrect, as the first meeting of the State Society was in 1820, at Corydon, as shown by extraets from the *Western Censor*, reported by Dr. Fletcher. The State Society was formed from delegates appointed by the District Societies, as shown by the following from Dr. Read's paper :

"VINCENNES, June 2d, 1817.—In conformity to an act of the Legislature, passed the 24th day of December, 1816, entitled 'An act to regulate the practice of Physic and Surgery,' the following censors appointed by said act met at the house of Peter Jones, in the town of Vincennes, on the first Monday in June, 1817." * *

"At a meeting of this medical organization at Vincennes, May, 1818, on motion, it was

"*Resolved*, That discretionary power be given to the President to appoint three persons on behalf of this Board, to meet delegates appointed by the other District Societies, at such time and place as shall be agreed upon for the formation of a State Medical Society."

"This is probably the first organization in the State of Indiana for the purpose of forming a State Medical Society. At this meeting a letter from Dr. Lyman Spalding, of New York, to David M. Hale, on the subject of forming a National Pharmacopia, was read and laid before the Board."

Dr. H. P. Ayres contributes to the history of Allen county, Dr. W. A. Pugh, M. Sexton and Dr. John Moffet to that of Rush county. Dr. Sexton says :

"The first medical society in the eastern part of Indiana was known as the Fifth Medical Society. This was organized under a law of the State, we believe, which provided for societiees throughout the State, in numbers equal to the congressional districts, perhaps, and with the same territory. To these societies was granted the

privileges of issuing licences, etc., though no law gave their membership any exclusive right to practice medicine."

Dr. Gilbert of Kendallville, contributes for the counties of Noble, De Kalb, Lagrange, and Steuben. He says:

"On the 12th of July, 1858, a number of the physicians of the county met at Ligonier and organized a county society, with D. W. C. Denny, M. D., President, and S. H. Estabrook, M. D., Secretary. The organization was kept up but a short time. I think there were only two meetings held. There seemed to be much in difference with reference to Medical Societies among the physicians of the country, which accounts for its short life. This was the first effort in Noble county to organize a Medical Society.

"On the 15th of June, 1870, the North-eastern Indiana Medical Society was organized. This society embraces the counties of Noble, Lagrange, Steuben and De Kalb. The movement which culminated in this organization, originated in Noble county, being first suggested by myself."

Dr. J. W. Hervey speaks more particular of a case of small-pox, where the eye was lost and he sued for malpractice. Dr. F. J. Van Vorhis of Indianapolis, reports upon Cerebro-Spinal Meningitis, and Dr. R. E. Haughton, asks and then strives to answer the question, "Does anything pass the Capillaries except normal blood cells." The literature bearing upon the subject is given in full, and the Doctor believes that his views as to the possibility of disintegrated thrombi passing the capillaries of the lungs is sustained.

Diabetes Mellitus, is considered by Dr. C. N. Blount, of Hagerstown, the condition of the urine and the various tests given with a notice of the different modes of treatment. E. D. Laughlin, M. D., Orleans Ind., relates his experience with Camman's Stethoscope as a means of diagnosis in fractures. He testifies that:

"A crepitus that was neither discernable to the sense of touch or the unaided hearing was clear, and distant

when the stethoscope was applied. A crepitus that is too indistinct to be made out by the unaided senses, is clear, and satisfactory when the Stethoscope is applied."

Medical Legislation is shortly noticed by Dr. Washburn, of Logansport. An opinion of the law in a suit for alledged malpractice, by D. P. Vinton, Esq., Lafayette Ind., is supplied by Dr. W. W. Vinnedge, of that city. The gist of which is that "with the exercise of ordinary care and dilligence, the liabilities of the physician and surgeon ends." "Morbo Lacteo" is the subject of a paper by E. S. Elder, Morristown Ind., in which the clinical history pathology, etiology, diagnosis, prognosis and therapeutics is fully discussed. As to the etiology he says:

"I think that the disease is *always* produced, in man, by eating the flesh, or partaking of the milk, or some of its products, of animals affected with the disease, or occasioned by inhaling the infected air or emanations, while skinning animals that have died with the malady. In the herbivora, by eating the vegetation of the infected districts, among which is the specific cause of the disease; in the carnivora, by partaking of the flesh of animals that have died with it; with birds, the affection is induced by eating insects generated in, an supported by, decaying animal remains.

"In the family, I attended, out of seven members, four had the disease; the three that escaped, used no milk nor butter. In the infected districts, families having no cows and using no milk, butter, nor diseased meat, always escaped. Calves sucking cows affected, became diseased, while those that were weaned and confined in cultivated grass lots escaped. I have known the suspected milk fed to dogs and pigs, and the disease induced in that manner. That dogs and other animals contract the disease by eating the diseased flesh, we have numerous demonstrations. I have myself seen dogs laboring undering the disease, and it was clearly proven that they contracted the disease that way. Hogs will die with it, near the remains of other animals of which they have partaken.

"That the original cause is vegetable, I infer from sev-

eral reasons, among them the following: Animals, other than the herbivorous, are comparatively free from it, and when affected it can clearly be attributed to the using infected meat, etc. Again, it prevails only in the season of the year when vegetation is accessible; animals confined in close quarters, or in fields or lots that have been cultivated, always escape. Again, it is universally conceded that cultivation eradicates it most effectually, also close pasturing, or destroying the primary vegetation; enclosing the land, and seeding it with the native grasses, removes the cause; burning over the infested districts removes it. So that in the prairie regions of the west, the infected localities are always beyond the regions devastated by autumnal fires that pass over those prairies.

"To my own knowledge, in a large district of country in Shelby county, where several years ago milk-sickness was the bane of the back-woodsman's life, now, with the single exception of a large unfenced woods pasture, the disease is unknown. In that particular woods the disease still exists, and in 1872, my father's family were poisoned, three of them dying with milk-sickness, by using milk from cows that had escaped from home and were found feeding in that woods, and in three weeks after more than a dozen cattle were found dead in the same tract of woods.

"Prof. Drake considered the poison a specific one, of vegetable origin, and the particular plant, one belonging to the poison oak, or toxicodendron family. That his theory is correct, I incline to believe."

In the discussion following this paper those affirmed seems to be indorsed.

A paper upon *Veratum Viride*, by S. S. Boyd, M. D., Dublin Ind., follows, he advocates it in various diseases, conditions and especially in puerperal eclampsia.

Intra-Ocular Diseases, by James Thompson, M. D., Indianapolis, comes next—this article is somewhat fonnate and very schoolastic, and illustrated by four plates of three figures each. It is certainly a valuable contribution to medicine.

Dr. Bell of Logansport, writes upon "Epilepsy arising from Urine Diseases. The Doctor says:

"The sole object of the present paper is to bring prominently before the society a single fact, of much importance, connected with the study of epilepsy, viz: That epileptic paroxysms may be induced by influences arising from pathological states of the uterus; and to this it might be added that these paroxysms are increased, in frequency and intensity, when the ovaries are drawn into the circle of diseased action. Let not the idea be here conveyed that every instance of epilepsy, in the female, is associated with a diseased uterus."

And relates several cases in support of the propositions thus guarded.

In the discussion that follows, Dr. Rooker related the case of a patient, "male," who submitted to castration for the cure of "fits," the Doctor himself operating.

The biographical sketch of Isaac Casselberry, M. D., by T. C. Van Nuys, M. D., is adorned by a very fair lithographic likeness of the Doctor—he was a member of the faculty of the Evansville Medical College, and President of the State Medical Society, at the time of his death.

S. G. Irwin, M. D., of Crawfordsville Ind., furnishes a biographical sketch of Thomas W. Fry, M. D., of Lafayette Ind., late Surgeon of the Eleventh Indiana Regiment of Volunteers, and a gentleman well known to the profession of the State.

The officers of the Society for 1875, are as follows;

President, R. E. Haughton, of Richmond; Vice-President, Wm. B. Lyons, of Huntington; Secretary, G. V. Woolen, of Indianapolis; Assistant Secretary, A. W. Davis, of Indianapolis; Treasurer, J. H. Woodburn, of Indianapolis; Librarian, J. K. Bigelow, of Indianapolis.

The next meeting of the Society will be the third Tuesday of May next, one week after that of the A. M. Association, this we consider unfortunate on account of the impossibility of sending delegates to that body.

PETITION OF THE AMERICAN MEDICAL ASSOCIATION IN BEHALF OF THE MEDICAL CORPS OF THE ARMY,—with a brief statement of the facts in the case. Washington, 1874.

This is a pamphlet issued by the committee appointed by the American Medical Association last year, with Dr. Toner of Washington as chairman, to memorize Congress to redress the grievances of the Medical Corps of the Army. They pray to have it "put on a permanent basis of respectability and usefulness, by providing that its officers shall hereafter receive a certain definite increase of rank in accordance with length of service, so that they may look forward to obtaining successively the grades of Major, Lieutenant Colonel, and Colonel after a reasonable number of years, not to exceed thirty years service for the grade of Colonel."

In the statement of facts, Dr. Toner ennumerates and comments upon the following facts:

"1st. Qualifications which Medical Officers of the Army ought to possess.

"2d. Extent to which it may be claimed that the Medical officers now in service possess these high qualifications.

"3d. Insufficient remuneration awarded to Medical Officers by existing laws.

"4th. Legislation asked for the relief of the Medical Corps."

Under the last head he says:

"It cannot then be claimed that the relief asked by the corps claimed is extravagant, or that it would bestow a disproportionate share of rank upon that branch of the service; while on the other hand, besides the fairness of the measure, which would bestow at length the long deserved reward upon many worthy officers who are beginning to despair of the justice of their country, it would, we think, enable the government to fill the vacancies now existing among the assistant surgeons with the *elite* of our young medical men, and enable the corps to be in the future, as it has been in the past, an honor to our profession and to our army."

We have before in this Journal expressed our views upon this subject, and are pleased to find that they accord with those of this Committee.

THE LONGEVITY OF BRAIN-WORKERS,—By George M. Beard, A. M., M. D., of New York.

In this work Dr. Beard asserts :

"1st. That the brain-working classes—clergymen, lawyers, physicians, merchants, scientists and men of letters,—lived very much longer than the muscle-working classes.

"2d. That those who followed occupations that called both muscle and brain into exercise, were longe-lived than those who lived in occupations that were purely manual.

"3d. That the greatest and hardest brain-workers of history have lived longer on an average than brain-workers of ordinary ability and industry.

"4th. That clergymen were longer-lived than any other great class of brain-workers.

"5th. That longevity increased very greatly with the advance of civilization; and that this increase was too marked to be explained merely by improved sanitary knowledge.

"6th. That although nervous diseases increased with the increase of culture, and although the unequal and excessive excitements and anxieties attendant on mental occupations of a high civilization, were so far both prejudicial to health and longevity, yet these incidental evils were more than counterbalanced by the fact that fatal inflammatory diseases have diminished in frequency and violence in proportion as nervous diseases have increased; and also that brain-work is, *per se*, healthful and conducive to longevity."

A PRACTICAL TREATISE ON THE MEDICAL AND SURGICAL USES OF ELECTRICITY,—including localized and general faradization, localized and central galvanization, electrolysis and galvanocautery, by G. M. Beard, A. M., M. D., and A. D. Rockwell, A. M., M. D. Second edition, revised, and enlarged, and mostly rewritten, with nearly 200 illustrations. Wm. Wood & Co., 27 Great Jones Street, N. Y. Cathcart & Cleland, Indianapolis.

This is *the* work upon medical and surgical electricity. While there are many small works good in themselves, this we believe is the only comprehensive manual we have on this subject. The profession, however, are well acquainted with the former edition.

THE MEDICAL REGISTER AND DIRECTORY OF THE UNITED STATES,—by S. W. Butler, M. D., Philadelphia.

We have not yet seen this work, but if it is properly arranged giving truthfully the names, place of residence, etc., of the various physicians, it can not fail to be of immense value. We can not vouch for it, however, at present, so many directories mislead rather than direct, that we advise a careful inspection before investing. We shall take the first opportunity and purchase a copy, simply to inspect for others.

Dr. E. L. Griffin, of Fon Du Lac, Wisconsin, has written a monogram on "Animal Vaccine," its history, use, and relation, value of the non and humanized virus, etc. A resume of the subject that is convenient for reference, the Doctor seems to have paid particular attention to this subject. He keeps on hand virus in different modes of preparation for the use of physicians, as will be seen by referring to his card in advertising column.

THE ILLUSTRATED ANNUAL OF PHRENOLOGY AND PHYSIOGNOMY.—S. R. Wells, 389 Broadway, New York.

Those who believe in those subjects as commonly taught, can pass a few minutes every day for a short time in looking at the "bumps."

THE TREATMENT OF PLEURISY,—with an appendix of cases showing the value of combination of croton oil, ether and iodine as counter-irritants in other diseases. By John W. Carson, M. D., late physician to the class of diseases of the chest and throat, etc. Wm. Wood & Co., New York. Cathcart & Cleland, Indianapolis.

DENTAL SCIENCE AND QUALTEREY ART JOURNAL,—devoted to the interests of the people. Conducted by Dr. A. P. Merrill, New York.

Editorial.

NOTICE TO SUBSCRIBERS.

By a mistake the price of the Journal for the next year was placed at \$2.50, when it should have been \$2.00. We only want enough to cover additional expenses including pre-paid postage, therefore, those who have sent us orders to continue at supposed price mentioned, will understand that the price will be \$2.00.

LLOYD, the famous map man, who made all the maps for General Grant and the Union army, certificates of which he published, has just invented a way of getting a relief plate from steel so as to print Lloyd's Map of American Continent—showing from ocean to ocean—on one entire sheet of bank note paper, 40x50 inches large, on a lightning press, and colored, sized and varnished for the wall so as to stand washing, and mailing anywhere in the world for 25 cents, or unvarnished for 10 cents. This map shows the whole United States and Territories in a group, from surveys to 1875, with a million places on it, such as towns, cities, villages, mountains, lakes, rivers, streams, gold mines, railway stations, &c. This map should be in every house. Send 25 cents to the Lloyd Map Company, Philadelphia, and you will get a copy by return mail.

Miscellaneous.

MIND BUILDING.

Lecture delivered before the Dialectic Society, at Vincennes, on
Friday evening, January 29th, 1875.

BY DR. A. PATTON.

The subject selected for investigation this evening, I

have chosen to designate as Mind Building, and in referring to many important and interesting features which pertain to the question, it is not my intention to lead you into the obscure and mystical paths of metaphysical speculation, but will treat of mind in its phenomenal existence, and not philosophize about its essence or real nature, of which but very little is absolutely known.

The first and controlling law of mind development may properly be styled *communicability*, and without which there can be no mind growth or improvement. The term mind building presupposes a mind architect and materials, means and appliances to be used in its construction. The work may be accomplished for a single individual, communities, nations, and the inhabited world. We will take it for granted that all individuals are endowed with a sufficient share of the mind principle to insure mental manifestations, provided the necessary means are employed to put the machinery in motion, and that there is a healthy organization through which the mind can act. Will there be mind manifestations without the aid of a mind-builder, is the first question for consideration. Would the child ever learn to speak, to perceive, to reason, to think, to compare, judge and decide unaided by those who have been taught to use the mind. But by what means and in what maner is mind built up? Buckle, in his History of Civilization, says "there was not a single man in all Europe who had studied the history of the past, or could even record with tolerable accuracy the event of the present." The natural sciences were scarcely known in the dark ages, and all attempts then made to enquire into nature's mysterious laws were discouraged, and often prohibited by the highest authorities. The English language, which has now attained such wonderful perfection and rich beauty was but little superior to that now spoken by many tribes of Indians.

It may be affirmed with truth that mind progress depends mainly upon external power, which some nations and individuals possess in a higher degree than others. But it must be admitted that the opportunity for acquiring knowledge and stimulating and building up the mental powers in early life constitutes the controlling principle in all intellectual and moral progress. Then who fully estimate the high responsibilities resting upon this generation for the intellectual and moral condition of the tender youth? Is it not a sacred duty devolving upon every man and woman to do something for the great work of mind-building? Should we not gather knowledge from every possible source? Not for the purpose of hoarding as the miser does his gold, nor for converting it into wealth, as the Alchemist attempted to prostitute the science of chemistry, but for the higher and nobler object of benefiting others? To indicate with still more force the duty we owe to others, it is proper that the principle of communicability shall be further elucidated. I have been endeavoring to establish, that mind is communicable from one to another, by which I mean more than merely imparting instruction. I intend to say that the mind principle itself may be transmitted from one person to another, by employing words, pictures, illustrations, ideas, facts, gestures, facial expressions and the force of oratory. These are vehicles in which the mind power of one individual may be transmitted to another. But to do this successfully, the instructor must be more than a mere lifeless automaton, doling out dry facts according to old formulas and fixed rules, as if there was a dull task to be performed, and the learner must possess a keen disposition to learn. In short, the minds of each must be in an active, living, moving state, and the teacher that cannot establish a connection between his own mind and that of his pupils, like the positive and the negative poles of the galvanic battery, will never make a successful teacher.

The teacher should be able to drive knowledge into the tender minds of young pupils, by the force of mind magnetism, without the aid of a ruler, or the penetrating power of hickory oil. Teachers must study to make knowledge attractive to the pupils, and the surest method of accomplishing it, is to convince them of its usefulness. Let them see that by acquiring a knowledge of letters, they will be able to learn to spell the names of the pictures in their primers, and that when they have learned words, they can read about the birds and animals, and read the stories in their books. This is the true science of education, not only for the school-room, but in the busy walks of life. When we see the importance and necessity of mastering an easy branch of knowledge because it will enable us to understand higher knowledge, then we are on the sure road of intellectual progress, and the one that will lead us step by step onward and upward toward the top of the hill of science and learning, which like the bag of gold at the foot of the rainbow, has often been sought, but never found. There is constantly opening up new fields for the enquirer after truth, which are the more enticing, the less they have been explored and cultivated. But what are the natural faculties by which we are enabled to increase and communicate knowledge?

The power of speech is one of the great instrumentalities employed in the work of mind-building, but even that is a mere dependant upon a higher system of organs. The power of speech would be of little use in developing and spreading knowledge, if there was no means of instructing the voice and furnishing it with signs by which it would be enabled to communicate ideas, thoughts and facts. Fortunately for the human race, fortunately for civilization and for religion, the patient mind-builders have invented certain little characters, each different in form and name, so that they can be recognized by the sight and ear and even touch.

The great primary mind-builders are the mothers of the little pupils, who begin their work in the nursery, and let me tell you there are more minds made or destroyed in the first ten years of life than afterwards. Habits of speech, of action, of thought, of reasoning, are formed during their first years of life, that will lead the child on to full and complete mental development or dwarf and enfeeble the mind for all time to come.

The intellectual faculties are needed from the moment the child begins to see, and the more they are cultivated, developed and used, the better it will be for the man or woman. Then mental activity instead of injuring the body, either in the child or adult, actually adds strength and sufficiency to the senses, and that part of the muscular system, which is under the direction of volition. But young ladies, I must inform you that just at this time, there is a loud wail going up from Boston and other Eastern cities, because some philanthropists and doctors, who have far more sympathy than science, have come to the conclusion that the poor girls are wearing out their young lives over hard school studies. Is this true? Is it a scientific fact that girls are so far defective in the mind element, as to render it dangerous for them to do a little hard studying when they are young and healthy? Are their brains so very delicate and weak that it is impossible for them to perform as much work in the school-room as the boys? This is Dr. Clarke's theory, and to prove it, he has written a book. But is he sustained by the facts in the case? Of course I know nothing about the Boston girls. They may be poor, weak-minded, sickly, hot-house, sensitive plants that would soon become crazy over Algebra, Latin, and the natural sciences; but I am very sure the boys of Indiana will readily admit that the Hoosier girls can do as much hard study as they can, and retain their good health and rosy cheeks too. In my opinion it will require but few words to explain the difficulty with the Eastern

school girls. Instead of their being educated in a rational, substantial and sensible way that will fit them for the active and plain duties of life, they are being educated, trained, and prepared for a form of existence that partakes more of the esthetical refinements and artificial modes of enjoyment than are consistent with the requirements of their mental and physical natures. Instead of building up the intellectual faculties, feeding, developing and educating the intellect as may be done with entire safety, and at the same time giving proper attention to the physical nature, they are using all the latest and most improved appliances of this artificial age to render the girls more effeminate in both the body and intellect. But how is this done? Go ask their dress-maker, the shoe-maker, the apothecary, the confectioner, the hair dresser, the dealer in cosmetics. Yes, and the chemist who manufactures poisons. They can a tale unfold, that will account for more dwarfed and distorted forms, pale cheeks and early deaths in Boston school girls, than can be laid to the charge of mathematics, latin and science. And if it is asked why their minds are so delicate that they cannot keep up with the boys in school, it is only necessary to see them bending over the latest and most intensely sensational novel which favors the early development of the emotional nature. Instead of feeding the intellect with solid, substantial, and useful knowledge, these girls stimulate and feed the imagination by reading a class of literature, and the indulgence in certain amusements which prematurely bring into action the passions and emotions. They rush into a society even while at school, that is seething and boiling with all the sickly, debilitating, and mind destroying influences that are engendered by pride, vanity, selfishness, love, hate, envy, and jealousy.

It is these and not defective organization that prevents girls from keeping up with boys in their studies. This

is the great error of society. It is Dr. Clarke's mistake—it is the ruinous mistake of mothers—it is a fruitful source of disease, unhappiness and premature death in girls. The rule in the education of girls should be to stimulate, to cultivate, and develop the intellectual faculties as much as possible, while the anterior brain is active and performing, almost the entire mind work, and repress by all reasonable means the emotional nature. Retard its development until the body and intellect have been so far built up as to fit them for the safe, healthful and intelligent action of that class of faculties which constitutes the distinguishing feature of womanhood. The laws of natural development clearly point to childhood as the proper time for building up the intellectual faculties. Then is the time to form a habit of study. Then the time to stimulate, to train and develop the memory. Then is the time to force the growth and exercise of the powers of preception. These cannot be overdeveloped or overcited—not a particle of danger, for nature demands their use, even in infancy. But it is a curious fact that if no effort is made to train the memory and the perceptive faculties, they will never attain full and complete development. It is just as important to train and educate the memory as to educate the hand. A boy will never learn to handle mechanical implements skillfully without being taught the practical use of them, nor will he be able to use the memory effectually and properly without having a training, and if this is neglected until manhood is attained, it will be difficult and almost impossible to teach the memory to perform active work.

Train the mind as you would a plant, supply it with such food and stimulants as it will bear, but do not be afraid of too early training of any of the mental faculties, for they all need food and culture. Shall we indiscriminately feed the mind with knowledge, as we give

food to animals? Or shall we throw before them a great variety of truths and knowledge, and allow them, like birds to pick up that which pleases them, or if none of the mental food offered suits their fastidious taste, allow them to nourish their minds with the miserable pottage, that is presented by their ignorant street associates? Neither of these methods is rational or scientific, though both have their followers in schools of a high grade. A distinguished professor in an eastern college, has lately suggested a course similar to the latter, insisting that scholars shall be permitted to study what they pleased, and when they pleased. The first, or, cramming plan fails to develop the higher powers of the intellect in any, and the liberal plan will make but few good scholars. The mind must be trained and developed, but it should be done so skilfully as to not render any part of the work of the school-room disagreeable to the learners.

ELEVATING THE STANDARD.—The University of Michigan is on the way to more severe requirements for admission to the medical department. During the present year, all applicants have been required to present themselves before the Dean of the Faculty, who inquires into their educational history and advantage, receiving from each a written statement, made in his presence, to be preserved as a matter of record. If he is not satisfied as to their qualifications for readmission, they appear before the whole faculty, and are more fully examined, and, if judged not qualified in literary and general acquirements, they are refused admission.—[*Ex.*]

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Original Communications.

CORRELATION AND CONSERVATION OF FORCES.

BY G. N. DUZAN, M. D., ZIONSVILLE, IND.

Continued from page 493, March Number.

When food is taken into the body, the elements of which it is composed, are separated by the process of digestion, from their previous combination, and at the moment of separation, they are in *statu nascente* and endowed with peculiar and powerful affinity. It is this peculiar affinity, while the elements are in this momentary nascent state, that determines, that special recombination of elements, which takes place in each histogenetic process, of an infinite series of structural differentiations.

The tissues of animals are wholly albuminoid, and albuminoid matter is required as food. By the digestive process, the oxygen, nitrogen, hydrogen and carbon are

separated from their previous combination, and, while oxygen and nitrogen, nitrogen and hydrogen, hydrogen and carbon, show no affinity for each other, under ordinary circumstances, readily unite when one or both are in a nascent condition. It is this union of oxygen and nitrogen, nitrogen and hydrogen, hydrogen and carbon, while in this momentary nascent state, *i. e.*, at the moment of their separation from previous combination in albuminoid food, and while subject to peculiar conditions within the body, that constitutes the "mystery and miracle of vitality."

Histogeny is a form of motion, by which the elements of food are separated from previous combination and re-combined in the development of the tissues. Food does not carry an immaterial entity—the *cause of motion*—"locked up, into the body" which oxygen "liberates everywhere in the organism in the form of heat;" but when the elements of food, are separated from previous combination, by the process of digestion, they recombine under *new conditions*, and form organic structures; and specific differentiation, is determined by special conditions, under which, the elements are re-combined. Oxygen does not liberate an immaterial entity called force "everywhere in the organism in the form of heat." Heat is a "motion of the ultimate particles of matter," and when atoms fall together, heat is manifested. Oxygen causes disintegration of the tissues, by combining with their hydrogen and carbon, but force "locked up" is not liberated thereby, "in the form of heat." When oxygen combines with the hydrogen and carbon, of the tissues, the particles take up new positions—there is a "*motion of the ultimate particles of matter*," which is *heat*. Instead, therefore, of it being a fact, that heat is *liberated* by oxygen, everywhere in the organism, it is a fact, that *oxidation*—whether it takes place within or outside the body—is *heat*.

"There are two opposite errors on this subject: One

is the old error of regarding vital force as something innate, underived, having no relation to other forces of nature; the other is the new error of regarding the forces of the living body as nothing but ordinary physical and chemical forces, and therefore insisting that the use of the term vital force is absurd and injurious to science."—Le Conte, *Popular Science Monthly*, Dec., 1873. "That force whose only office appears to be, the giving and preserving the types and forms of organized and organizing material, with special reference to specific differentiation of structure, is called the '*form force*, the *architect of organization*.' This latter force is undoubtedly the same as the so-called '*vital force*,' a name unfortunately for science, still retained in our standard works on physiology, and implies, if it means anything, the existence of a mysterious, supernatural, not well defined celestial agency, controlling the phenomena of living beings; its counterpart to be found no where else in nature."—Dr. Warford, *Ind. Journal of Medicine*, Feb. 1875.

How dangerous it is, to be scientific! Dr. Warford says, first, that "*form force*," "is undoubtedly the same as the so-called "*vital force*;" next, in an *O tempora! O mores!* style of lamentation, says, "a name unfortunately for science, still retained in our standard works on physiology." If the forces are the same, then, we ask: "What's in a name?" The difference between "*form force*" and "*vital force*," is, simply, a question of a choice of terms, and not a choice of conceptions.

"It is an error," says Prof. Le Conte, "to insist that the use of the term vital force is absurd and injurious to science."

We would like to settle this incongruity, but do not like to be so obtrusive as to interfere with the private affairs of the two gentlemen. We will suggest, however, that both "*form force*" and "*vital force*" be discarded from our "standard works on physiology," which imply,

if they mean anything, "the existence of a mysterious, supernatural, not well defined," indivisible, impalpable, metaphysical—nothing!

We confess that we have not, as yet, become so transcendently metaphysical as to have a "well defined" conception of a metaphysical entity, such as "*form force*," therefore in place of "*form force*" or "*vital force*" we suggest the term "*organic motion*," as expressive of all that can be expressed by a term. "But," says Prof. Le Conte, "can we conceive of movement without force?" If the term force is used to designate an immaterial entity—an existence *per se*—separable from, and independent of, matter, from which it proceeds, and upon which it acts, we frankly confess that we *can*. But if the term force implies anything of a material nature, which produces motion, we freely acknowledge that we *can not*; for we can not conceive of motion without pre-existing equivalent motion as its cause.

Furthermore, Prof. Le Conte says, "And if the movement is peculiar, so also is the form of force." A peculiar mode of motion, is not determined by a peculiar form of force, but by the *peculiar form of matter that is moving*, and the motion is derived from antecedent equivalent motion. Heat is a "peculiar" mode of molecular motion.

When two cannon balls, of equal size and velocity, meet and fall motionless, the motion of the two bodies is converted into heat—a "peculiar" form of molecular motion. Is this "peculiar" motion caused by a "peculiar" immaterial force, or is it simply a continuity of motion, from the cannon balls to the molecules? It may be accepted as an axiom, that when motion appears in one place an equivalent motion has disappeared in another, and the motion which has disappeared sustains a relation of causality to that which has become visible. But if motion is the cause of motion, in endless chain of invariable sequence:—What was the original cause

of motion? If matter was created, which we think is highly problematical, motion was imparted to it by the Creator. But if matter is eternal, then, we can not conceive of a time when it was in a state of absolute inertia. Matter and motion are, as we verily believe, co-existent and co-eternal, and if co-eternal they are uncaused and uncreated.

“Dr. Z. C. McElroy, of Zanesville, Ohio, has made the discovery and assigned to the lymphatic system this very function;—that from the products of tissue *debris* are collected and stored up in the lymph, both the material and force necessary for the perpetuation and reproduction of tissue momentarily wasted in the performance of function. If future observations and experiments confirm this opinion, it becomes in point of *dignity* inferior to no other single discovery in physiology in the past. The force stored up, as it presides over forms of structure, must be identical with the so-called *vital force*.”—Dr. Warford, Indiana Journal of Medicine, February, 1875.

It may be true—and we do not allow ourself to doubt precipitantly, an announcement however startling—that, at Zanesville, Ohio, and Cicero, Ind., the human system is endowed with the remarkable capacity of re-integrating and conserving, in the subtle synthesis of correlation, “both the material and the force” of its own *debris*, which enables it to subsist on its own fat, thus constituting a sort of perpetual motion. But in this, rather obscure, locality, in which we live, the human organism has *points of egress* at which the *debris* of tissue *escapes*, and it has no correlating and conserving apparatus, by which it can “work over” and “utilize,” “both the material and the force” of its *debris*.

The beauty of the discovery—which “in point of *dignity*” is “inferior to no other single discovery in physiology”—is marred by the absence of one important element—truth.

There is nothing to justify us in assuming, that there is, "stored up," in the lymph, or any other part of the organism, a force,—“a real immaterial *something*,” that “presides over forms of structure,” and “whose only office appears to be, the giving and preserving the types and forms of organized and organizing material, with special reference to specific differentiation of structure.”

The series of processes of embryogeny, by which, the evolution of the parts, and the generic differentiation of the embryo, are effected, may be resolved into, and is in reality, a series of motions;—motion of disintegration, and motion of recombination under peculiar conditions, i.e., in a nascent state of the atoms. To illustrate: In the developmental processes of the egg in incubation; as it required a definite amount of motion, to produce the special combination of elements in the vitellus, so, also, an equivalent motion is required to separate them. Molecular motion—heat—derived from the body of the hen, is imparted to the vitellus, which contains the elements that are to undergo development into the embryo;—this molecular motion, is the “agency of change,” “the *organizing* or *working* force,”—“the builder.” The molecular motion imparted to the elements composing the vitellus, causes a separation from their combination in the vitellus, and, at the moment of separation, while in a nascent state, they acquire “vital movements” and enter into new combinations. The vital movements acquired by, and the new combinations resulting from, the peculiar nascent state of the elements, are the cause of that remarkable process, denominated segmentation, which results in the formation of blastodermic cells. The blastodermic cells, after the process of segmentation is completed, are so arranged as to form the blastodermic membrane. This membrane is further subdivided by a process similar to segmentation of vitellus,—that is, by separation of elements from previous combination, and recombined,

by a special *organic motion* acquired while in a nascent state.

The special motion, which the elements of the vitellus acquire, while in a nascent state, and which determines specific differentiation of structure, is not caused by a special "form force," that "presides over forms of structure," but the special motion of the elements, is determined by their previous *specific atomic arrangement in the vitellus*.

That specific differentiation of structure, is determined—by *special conditions*, under which the elements combine, instead of metaphysical entities is not an assumption, but an inference—a logical deduction from well known facts. But, if it be true, that there is no generic *force*, inherent in the egg, and that generic differentiation is determined by the specific atomic arrangement of the elements composing the vitellus; the question, then, arises:—What produces the special determinative arrangement of the elements, in the vitellus? This question is suggestive of that other, famous, problem:—"Which was created first, the egg or the hen? We will give our solution of this problem before we are done.

"That force, the office of which is, to organize and build up from new material furnished, without any special reference to, or regard for, individual forms of structure to be organized, we will call the "*formless force*."—Warford.

The "formless force," is not, as we have shown, an immaterial entity, but is molecular motion—heat. In the development of the egg in incubation, this molecular motion is derived from the body of the hen; it is the "*organizing or working force*," "the builder," but the, specific, determinative, molecular structure of the vitellus of the egg, is the "*architect*," the "*form force*."

"That force whose only office appears to be, the giving

and preserving the types and forms of organized or organizing material, with special reference to specific differentiation of structure, is called the *form force*.”—Warford.

We are to understand then, that the “*organizing or working force*,” and the “*form force*,” are two distinct existences *per se*;—one the architect, the designer; the other, “the bodily force of the workmen who labor under his guidance in the construction of the fabric.” We are to believe, also, that the “*form force*,” the “*architect*,” and the “*formless force*,” “the builder,” are—if the doctrine of the correlation and conservation of forces be true—mutually convertible—the *architect and the builder are correlated*!

“The air, earth and water, with their unnumbered genera and species of animal and vegetable existences, become but one extensive whole, a system of powers, a dissolving view of a portion of the sublime and universal cosmos—a unity—both in material and force.” (?)—Warford.

Dazzled, by the rhetorical splendor of this passage, one is likely to forget to distinguish between the truth and the beauty of the thought; yet, we must not forget that the “*formless force*,” “the *organizing or working force*,” and the “*form force*,” “the *architect of organization*,” become unified in “the sublime and universal cosmos!”

If it be true, that there are two, such immaterial existences, as “*form force*” and “*formless force*,” then, under what conditions, are they converted into each other, and what causes the transformation? If they are not converted into each other, what becomes of “the sublime and universal cosmos” in which they are so harmoniously unified:—

“Like two kindred dew drops
Melted in one?”

What is, this, so-called “vital force,” or “*form force*,”

which is, assumed to act, only, upon less than twenty elements; that resides in the germ, determines the differentiation of structure, and constitutes the essential nature of life? Is it an entity *per se*, a principle diffused throughout the universe, having a special predilection for, only, a few elements, in that synthesis, that gives form and life, to amorphous and lifeless matter? If it is an immaterial existence diffused throughout the universe,—if it acts upon the elements and the elements do not act upon it, how, then, are the, almost infinitely, diversified forms of life produced?

If all kinds of force are but forms or manifestations of “some *one* central force,” and if matter is inert, what, then, produces such diversified manifestations of force?

If we go back to that remote beginning, when there was but *one* central force, and inert matter,—matter too, in a state of homogeneity, then contemplate the wondrous phases and endless changes, which matter has since undergone, we can not believe that *one* central force, could have conditioned *inert* matter so as to produce such endless variety of forms. If there is a “*form force*” “which presides over forms of structure, and if matter is *inert*, then, there must be as many kinds of “form force,” as there are genera, species, classes, and individual forms of life; nay, more than this, there must be a special “form force” for every specific differentiation of structure, in each organ of the body.

The doctrine, of the multiplicity of forces, is, simply, a reproduction, in a new garb, of that polytheism, of ancient philosophy, which ascribed each remarkable phenomenon of nature, to a special god, as its efficient cause.

“The prevalent opinion has until lately been,” says Dr. Carpenter, “that this power (vital force) is inherent in the germ; which has been supposed to derive from its parent not merely its material substance, but a *nisus formativus*, *bildungstrieb*, or *germ force*, in virtue of which it

builds itself up in the likeness of its parent, and maintains itself in that likeness, until the force is exhausted, at the same time imparting a fraction of it to each of its progeny. In this mode of viewing the subject, all the organizing force required to build up an oak or a palm, an elephant or a whale, must be concentrated in a minute particle, only discernible by microscopic aid, and the aggregate of all the germ forces appertaining to the descendants, however numerous, of a common parentage, must have existed in their original progenitors. * *

* And in like manner, the germ force which has organized the bodies of all the individual men, that have lived from Adam to the present day, must have been concentrated in the body of their common ancestor. A more complete *reductio ad absurdum* can scarcely be brought against any hypothesis; and we may consider it proved that in some way or other, fresh organizing force is constantly being supplied *from without* during the whole period of the exercise of its activity.

When we look carefully into the question, however, we find that what the *germ* really supplies is not the force, but the *directive agency*." "The actual constructive force, as we learn from an extensive survey of the phenomena of life is heat."—Carpenter, (Youmans,) page 411-12.

An "agency," is something having the quality of acting or exerting power. The "*directive agency*," then, of Dr. Carpenter, is an immaterial something, that directs the "constructive force" in "working out the design of the architect." Where does the germ get its "directive agency" unless from its parent? So the "directive agency" that has directed the "constructive force," in the development of "all the individual men, from Adam down to the present day, must have been concentrated in the body of their common ancestor." The "directive agency" would, thus, as surely be exhausted, as his "organizing force," unless supplied *from without*, but

the supply from without is not admitted, by Dr. Carpenter, therefore the rapacious *reductio ad absurdum*, of Dr. Carpenter, indiscriminately devours both "organizing force" and "directive agency."

(To be Continued.)

NOTES OF SURGICAL CASES.

BY CHARLES C. F. GAY, M. D., SURGEON TO BUFFALO GENERAL HOSPITAL, BUFFALO, N. Y.

Scrotal Hernia, with Unusual Strangulation—Operation.

On November 1, 1874, I was called upon to operate for strangulated inguinal hernia of the left side, upon a German, aged 45 years. The following history of the case was obtained: The hernia is old, having existed 20 years. Truss had never been worn. The bowel was sometimes returned into the abdominal cavity, but usually remained within the scrotum, as no inconvenience resulted therefrom until now. Three or four days ago it became troublesome. The whole of the scrotum became swollen, inflamed and consequently painful. No passage could be obtained from the bowels; there was occasional vomiting. Timely and judicious attempts, by taxis, had been made by his skillful medical attendant in vain. The scrotum was held up by suspensory bandage and a lotion of acetate of lead has been employed, which had the effect to diminish the inflammation. I should also say that a cathartic had been administered, which neither operated nor aggravated the symptoms. The vomiting was not stercoracious; there was no peritoneal tenderness nor inflammation, pulse 108 per minute. The protruding bowel extends to the fundus of the scrotum, and is two

inches or two inches and a half in diameter. Clasping it and passing my thumb and forefinger up along its course, I find the tumor terminates just before my fingers reach the extreme abdominal ring, which fact obscures the diagnosis; stricture at the ring must be impossible. What then can be the cause of the intestine remaining in this immovable condition, with a semblance to strangulation which is in reality not strangulation, at the abdominal ring? I first decided to ascertain the nature of the contents of the tumor, whether fluid or solid, for this purpose I made use of the aspirator, and drew off only a few drops of the fluid. An operation was then decided upon and made at once, chloroform being given, and its effects maintained by ether. On cutting down to the ring I found I could easily pass my finger into the abdominal cavity. There was certainly no stricture there. Following the downward course of the intestine I came upon the stricture, which was in the sac and three inches below the external ring. The stricture was very firm, and was divided by cutting from above downwards. The sac was then laid open and its walls found to be a quarter of an inch in thickness. Adhesions extended down into the scrotum which were broken up, and the bowel returned into the abdominal cavity. Although the operation would have been completed after having divided the stricture, since no detriment could have occurred from allowing the bowel to have remained in the position so many years maintained in safety, yet it was thought advisable by those present to return it. Its appearance was not at all inviting. There was evidence of approaching gangrene, the color was bad and the intestine was cold and fully imparted with fecal matter, which gentle pressure upon the intestine failed to unload. In 48 hours the patient succumbed. Autopsy not allowed.

HALLUX VALGUS.

Resection of a half inch of the head of the first

metatarsal bone for abduction of the great toe, is, so far as I am able to determine, a recent operation.

On April 7, 1873, Dr. Hamilton, of New York, performed the operation for the first time. On April 15, 1874, Dr. Ross, of St. Francis hospital, New York, publishes a paper with report of operations in the New York Medical Record. On May 5, 1874, I reported to the Buffalo Medical Association two cases. These cases were also reported for and published in the December 15th number, for 1874, of the New York Medical Record.

On January 15, 1875, Dr. Girard, U. S. A., published an article in the New York Medical Record on "Resection as a remedy for abduction of the great toe."

Other operators may have reported their cases, but if so they have escaped the observation of the writer. I am sure that none of the so called minor operations of surgery have given me more satisfaction than this one. It remedies almost by a stroke of the knife, a very common and painful deformity, without pain and without loss of blood, provided chloroform and Esmarch's bandages are employed. It is a little curious to see in the report of the few cases published, the prominence which the operator gives to his own method of removal of the head of the bone.

Thus Dr. Hamilton makes use of the bone forceps. Dr. Ross uses the straight narrow saw, while the writer employs the chain saw. I can scarcely imagine how any one would think of using any other method than the one by chain saw to remove the head of the bone, since it is far preferable to any other method.

So also have these different operators been somewhat at variance in regard to the incision, one operator advising the crucial incision, while another makes a single longitudinal one. My own method in the performance of this operation is to use Esmarch's bandages,

applied up as far as the popliteal space. Make a single longitudinal incision over the metatarsophalangeal prominence, disarticulate the bone, pass the chain saw around it, and if the abduction extend nearly to a right angle, to saw off a little more than a half inch of the head of the bone. The toe will then fall into a line with the axis of the foot, needing no other after treatment than the warm water dressing.

TRAUMATIC STRICTURE OF THE URETHRA, CYSTOTOMY.

Mr. D., aged 23 years, was kicked by a man upon the perineum, which caused a stricture so that he was unable to void his urine. He entered the surgical ward of the Buffalo General Hospital under my care, with very great distention of his bladder, with consequent pain which comes from the desire to pass water, but with entire inability to do so. He has only been able to pass a few drops of urine at a time for the past six weeks or since the infliction of the injury. Immediately after the injury he became unconscious and so remained for twelve hours.

Frequent failures had been made by physicians before his admission to hospital to introduce catheter. During some of these efforts an artificial passage had undoubtedly been made in a portion of the canal which the catheter had traversed.

Chloroform was now administered, and a futile attempt made to introduce catheter. I then performed cystotomy through the rectum and drew off through the curved canula, a large quantity of urine, next, a flexible catheter was introduced through the canula when the latter was withdrawn over the catheter, leaving the catheter in situ. For the next 48 hours urine passed off through this but it was now observed to pass also by the urethra, therefore, in another day the instrument was removed, when the urine passed by natural outlet, so that in a few days the stream was of sufficient volume to allay further apprehensions, and the patient was discharged.

IRRITABLE ULCER OF THE RECTUM, WITH
A CASE.

BY J. A. SUTCLIFFE, A. M., M. D., INDIANAPOLIS.

Irritable ulcer of the rectum is a term synonymous with fissure of the anus, and implies a condition in which there is a diminutive lesion, as regards the amount of tissue involved, at the orifice of the rectum; but one which occasions an almost intolerable amount of suffering. The pain is astonishingly out of proportion to the extent of the pathological condition which prevails. The site of the ulcer is at the margin of the rectum just where the mucous membrane terminates in the integument, and corresponds to some point within the grasp of the external sphincter muscle. It is most usually, but not invariably, found on the posterior aspect of the rectum near the coccyx. This ailment is more frequently met with in cities than in the country, as sedentary habits indirectly bear to the disease, in most instances, the relation of cause and effect. The patients are usually middle aged and the greater proportion are females.

To constipation may be attributed the principal immediate cause of the disease in question. The rectum being unduly distended in the act of defecation, a rent or fissure in the mucous membrane is the result. The loss of continuity is thus maintained by the irritating quality of the material which passes over it, and by the frequent distention of the anus together with the firm contractions of the sphincter which is stimulated in its action by the presence of the fissure. The feces acting as a constant source of irritation together with the persistent action of the fibers of the sphincter, immediately underlying the fissure, occasions an inflammation which terminates in an irritable ulcer. Nature, proverbial for the prodigality with which it lavishes its influences of restoration upon the ailments of mankind, is in this disease wholly ineffectual. Without the aid of the hand of sci-

ence, the poor sufferer must indefinitely drag out a miserable existence. But happily for both sufferer and surgeon, the means of relief are simple and certain. The diagnosis is easily made. The history of the case is usually one of constipation attended invariably with a severe dull pain for hours after defecation. The speculum readily brings to view the offending ulcer which is small, excessively sensitive to the touch, and in appearance has been likened to a soft chancre by our distinguished countryman, Dr. Van Buren. The indications in the treatment are to change the character of the ulcer and to secure quietude by arresting for a time the action of the sphincter muscle. This disease was first successfully treated by Boyer of France, whose operation was to cut the sphincter muscle. It is evident that no contraction could then occur, and while the muscle was healing the ulcer got well. This procedure on account of its severity was modified by English surgeons, with satisfactory results, by making an incision through the ulcer and carrying it down through a portion of the muscle; thereby dividing the fibers which immediately underlie the ulcer. But a better operation than either of these is that of Recamier of Paris. It consists in forcibly distending the muscle by inserting both thumbs into the rectum and then separating them until they meet the tuberosities of the ischii. The result of this procedure is to wholly paralyze the muscle for several days, and by the time it has regained its full power of contractility the ulcer has entirely disappeared. The internal sphincter prevents any involuntary discharge of the feces during the period of recovery, and there are no ill consequences of any kind as a result of this surgical interference. In fact, no operation within the whole range of surgery guarantees more highly gratifying results in the broad domain of our science, or more certainly rewards our efforts with success.

On the 9th of January, 1875, my partner, Dr. Wm. Wands and myself, were consulted by Mr. R——, a mid-

de aged gentleman, whose occupation is that of a mechanic. He had suffered intensely for a period of six years from an affection of the rectum. For about five hours after defecation the pain was so great that it almost wholly incapacitated him for business. His general health was steadily being undermined by the constant wear upon the nervous system which his malady occasioned. He had sought in vain for relief from medicines during the whole time of his ailment, and at the time of our interview with him he was completely disheartened. The use of the speculum disclosed a small pale ulcer about five lines in length and four in width, very sensitive to the touch, on the anterior wall of the rectum; the long diameter of the ulcer being parallel with the axis of the intestine. The bowel being thoroughly cleansed with warm water the patient was chloroformed and the rectum thoroughly distended after the manner of Recamier; and in addition, an incision was made through the long diameter of the ulcer with a view of stimulating the process of healing. A slight ecchymosis followed the distention from rupture of some of the small veins about the anus, but this condition entirely disappeared in a few days. The patient was kept in bed three days, and a motion of the bowels was prevented for five days by the use of small doses of sulphate of morphia. At the end of that time a mild laxative was given, and at the expiration of ten days after the operation, the patient had made a complete and permanent recovery.

Proceedings of Societies.

THE MITCHELL DISTRICT MEDICAL SOCIETY.

This Society held its first annual meeting in Biggs' Hall, at 1 o'clock p. m., Thursday, February 4th. Drs.

McLaughlin, of Harrodsburg, and Gailbraith, of Seymour, were received as members. There being no committee to report, the Secretary announced that there would be a public address in the evening.

Dr. Davis read an article on Diphthera, its history, pathology and treatment, which he thinks should be tonic and stimulating.

Dr. Galbraith had treated 22 cases with pepsin, alternated with astringents, which he thinks beneficial from its solvent power upon the albuminous exudation.

Dr. Gerrish had no settled plan of treatment, but had found dilute carbolic and sulphuric acid of benefit.

Dr. Yost gave a *resume* of the views of Virchow, Eberle and others; he regarded routine treatment as wrong.

Dr. May read an essay upon acute-pneumonia, advocating a decided supportive treatment.

Dr. Gerrish regards inflammation as a physiological action under abnormal circumstances. He prefers aconite to any other sedative, never blisters, sometimes uses sinapisms, then emollient poultices, exhibits chalybeates.

Dr. S. Yost and J. Newland prefer the Phlogistic treatment, care is requisite with aconite.

Dr. Ch. Pearson places his reliance upon opium.

Dr. Chase reported a case of unclosed Foramen Oval in a man age 30 years; two cases of fracture of the skull, in one of which the patient lived 45 days after a comminuted fracture of the Occipital, Temporal, Parietal and Frontal bones on left side.

Dr. B. F. Newland mentioned the plan of administering opium previous to chloroform.

Dr. Gerrish thinks it improper so to do, also to give alcohol under the same circumstances. Discussion upon this topic was entered into by several, and lasted until adjournment.

Annual Address by Prof. Stevens, of Indianapolis, at 7:30 P. M.

SECOND DAY.

BIGGS' HALL, 8 A. M., FEB. 5TH.

The President, Dr. Rairdan, in the chair.

Dr. B. F. Newland spoke of the consecutive administration of opium and chloroform, the first as producing congestion of the brain, the other anæmia of that organ, thus being antagonistic in their actions. He thinks Dr. Gerrish's idea that alcohol is not a stimulant, partially true, like all narcotics its primary action being stimulation.

Dr. Gerrish, "where you precede chloroform by a full opiate, the recovery from anæsthesia and the effects of the operation is slow and tedious."

Drs. Chase, Galbraith and J. W. Newland were appointed to report at next meeting upon the questions—Does chloroform kill in more than one way? and what are the antidotes to its different effects.

Dr. Dixon read an able paper upon the effects of Quinine, and the disease in which it is applicable; discussions of this subject was general.

Dr. Chase read the report of the committee for appointing delegates to the State and American Medical Associations.

Dr. — reported the birth of a foetus that lacked a considerable portion of the cranium.

Dr. Cummings reported some cases of severe facial Erysipelas cured by full doses of Iron and Quinine, nutritious diet, alcoholic stimulants.

Dr. Chase mentioned some cases cured without the use of alcohol.

Dr. Burton places his chief reliance in iron.

Dr. Yost uses no local treatment except lard to exclude air, he used alcohol only in cases where there is great depression.

Dr. Gerrish had used Iron in such cases more than twenty years, the administration of alcohol he thought injurious, except in the phlegmonous variety.

The discussion being closed, the President notified

those who had not read their papers, to be prepared at the next meeting.

The By-Laws of the State Medical Society for 1872 were adopted by the Society.

The Society then adjourned to meet at Bedford, on Friday, March 19th., at 1 P. M.

Reviews.

CONTRIBUTIONS TO THE ANNALS OF MEDICAL EDUCATION IN THE UNITED STATES,—before and during the war of Independence. By Joseph M. Toner, M. D., Washington, D. C.

Dr. Toner is without doubt one of those men who possess those qualities that are required for successful labor, without this no such work as he has performed—we mean in kind—during the last few years, would have been prosecuted. Gold is but dross, and even position counted but foolishness by such minds. They work in their chosen ways simply because they can't well help it, or as we generally term it, "because they love to." We find that four colleges existed before and at the time of the Revolution. As to the admission of students we find:

"1st. Such students as have not taken a degree in arts, must give evidence of a competent knowledge of Latin and of certain branches of natural philosophy. 2d. Three years after matriculation, an examination for the bachelor's degree will be allowed to students who have taken one competent course of lectures. 3d. One year after obtaining the primary degree the student will be admitted to examination for the doctorate, if he shall be twenty-two years of age; shall have attended two full courses of lectures, and have published and publicly defended a treatise upon some medical subject. 4th. The mode of examination shall follow that of the most celebrated universities of Europe.

“The first bachelor’s degree conferred in America, was granted in Philadelphia in 1768, and in New York, in 1769. The first degree of doctor in medicine was conferred in New York in 1770, and in Philadelphia in 1771.”

ANNUAL REPORT OF THE SURGEON GENERAL, UNITED STATES ARMY, 1874.

Dr. Barnes in this report tells us that the “Second Part of the Medical and Surgical History of the War, seven hundred (700) pages have been printed, and nearly all the plates have been prepared.

“In accordance with the act making appropriations for sundry civil expenses of the government for the fiscal year ending June 30, 1874, and for other purposes, approved June 23, 1874, proposals have been obtained for preparing the plates for a new edition of five thousand (5,000) copies, which have been approved by the Hon. Secretary of War, and the work is now in progress. That part of the work now going through the press is being stereotyped. Legislation is necessary to authorize the Congressional Printer to print an additional edition of five thousand (5,000) copies from the commencement of the work, and I respectfully recommend that such authority be given.”

This is good news, for so valuable a work should be issued in sufficient numbers to distribute liberally among those who will be benefited by it.

ARCHIVES OF ELECTROLOGY AND NEUROLOGY.—A Journal of Electro-Therapeutics and Nervous Diseases. Edited by Geo. M. Beard, A. M., M. D.

This Journal is now fully established. It numbers among its contributors the very best writers in America and Europe. Subscription price \$2.50 a year in advance—\$3.00 a year after January 1st, 1875. Subscriptions and Books for Review, may be sent to the Publisher, Thos. L. Clacher, 107 East Twenty-eighth street, New York. Manuscripts, Letters of Inquiry, and communications of a general nature, may be addressed to the

Editor, Geo. M. Beard, M. D., 53 West Twenty-third street, New York.

It is strange that any one interested in Electrology, should be without this Journal.

MIGRANTS AND SAILORS—Considered in their relation to the Public Health. A.—Some defects in the immigration service affecting the sanitary interests of the country, by John M. Woodworth, M. D., supervising surgeon United States Marine-Hospital Service. B.—Sailors as propagators of disease, by Herber Smith, M. D., Surgeon United States Marine-Hospital Service.

These are both valuable articles. In the first Dr. Woodworth says in speaking of the attempt to regulate sanitary subjects by national legislation, that:

“But for the fact that the criticism has already been made, it would seem hardly necessary to say that this action is not intended in any wise to interfere with, or to intrude upon, the recognized functions and prerogatives of Health Boards. If this were the true meaning and intent of the sections, their enactment would be useless, but nothing more; since such legislation would be clearly unconstitutional and could not be enforced.”

This ought to settle the objection urged against State Boards of Health by our brothers, the Homœopathists.

MATERIA MEDICA.—for the use of Students, By John B. Biddle, M. D., Professor of Materia Medica in the Jefferson Medical College, etc. Sixth edition, revised and enlarged, with illustrations. Philadelphia, Lindsay & Blackiston. Indianapolis, Cathcart & Cleland.

We cannot do better than to give extracts from the preface of this edition:

“He has bestowed unusual care upon the preparation of the present edition, having recast and often rewritten the *therapeutical* articles, and remodelled the chemical descriptions. The new method of chemical *notation* is now so universally used, that it has been adopted in this edition.”

It is certainly a most valuable work.

THE CHICAGO JOURNAL OF NERVOUS AND MENTAL DISEASE.—Edited by J. S. Jewell, M. D., and H. M. Banister, M. D. Price \$4.00 per year. Issued quarterly.

This is a very neat quarterly, and contains many valuable contributions by Drs. Jewell, Rockwell, Dexter, and others, with Reviews, and Periscope of much interest, contains notices of article on the anatomy, pathology therapeutics of the nervous system. We only hope the profession will support it, but fear that, like many good periodicals, they will let it die.

THE First Anniversary of the Mitchell District Medical Society was held in Mitchell on the 4th and 5th of February, 1875. Prof. Stevens, of Indianapolis, delivered the annual address in the Presbyterian church. The Professor dealt at some length on the early history of Medicine in the State of Indiana, and of the zeal and energy of the pioneer physicians of the State. Prof. Stevens was followed in some timely remarks by Drs. Chas. D. Pearson, of Lafayette, and J. T. Gerrish, of Seymour.—*Mitchell Commercial*.

THIRD VOLUME FOR 1873 OF THE ANNUAL RECORD OF SCIENCE AND INDUSTRY.—Prepared by Prof. Spencer F. Baird, Assistant Secretary of the Smithsonian Institution, with the assistance of some of the most eminent men of Science in the United States. Large 12mo, over 800 pages, Cloth \$2.00, uniform in style and price with the volumes for 1871 and 1872. The three Volumes sent by mail, postage prepaid, to any part of the United States, on receipt of five dollars. Harper & Brothers, Publishers, Franklin Square, New York.

A PRACTICAL TREATISE ON ECZEMA,—including its Lichenous and impetigenosis forms, by Dr. McCall Anderson, third edition. Lindsay & Blackiston, New York. Cathcart & Cleland, Indianapolis.

An exhaustive work upon the subject.

TREATMENT OF PLEURISY —By John M. Carson, M. D., Late Physician to the class of Diseases of the chest and throat, in the New York and Eastern Dispensary, etc. W. Wood & Co., New York.

This work has an appendix of cases "showing the value of combinations of croton oil, Ether and iodine, as counter irritants in other diseases."

CASES OF HYSTERIA NEURASTHENIA, SPINAL IRRITATION AND ALLIED AFFECTIONS,—with remarks, by Geo. M. Beard, M. D., New York. Reprinted from the Chicago Journal of Nervous and Mental Diseases.

ANNUAL ANNOUNCEMENT OF THE MEDICAL COLLEGE OF THE PACIFIC.—(Late Medical Department of the University of the Pacific,) being the Medical Department of University (city) College, San Francisco, session of 1875. Number of graduates of 1874, eight.

REPORT OF 105 CASES OF OPERATIONS FOR CATARACT — Reprinted from Boston Medical and Surgical Journal, October 1, 1874. By B. Jay Jeffries, A. M., M. D., Harv, Ophthalmic Surgeon at the Massachusetts charitable Eye and Ear Infirmary, the Carney Hospital and the New England Hospital for women and children.

INJURY OF THE SKULL;—their relation to medical evidence, with report of cases and remarks upon the employment of trephine. By C. C. F. Gay, M. D., Surgeon of the Buffalo General Hospital.

Here are some valuable deductions from case observed.

SCLERITIS SYPHILITICA—its Pathology, cause and treatment, by Fred R. Sturgis, M. D., Lecturer on venereal in the Medical Department of University New York. Reprinted from Archives of Dermatology. G. P. Putnam & Co., New York.

AN ACCOUNT OF THE EPIDEMIC OF CHOLERA—During the summer of 1873, in eighteen counties of the State of Kentucky. By Ely McClellan, M. D., Assistant Surgeon U. S. Army. Reprinted from vol. 1., Public Health Papers of American Public Health Association.

CATALOGUE OF THE TRUSTEES, PROFESSORS AND STUDENTS OF THE JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.—Session 1874-5. Total number of Students, 403.

Editorial.

THE WABASH MEDICAL SOCIETY.

This Society was organized on the first Tuesday of January 1875, by electing Dr. W. W. Hilt President, A. Patton Vice-President, H. M. Smith Secretary, F. W. Beard, Librarian. The constitution adopted was in substance, the same as that by which the State Medical Association of Indiana is governed. It is a District Society for the physicians of the 2d. Congressional District in Indiana and that of adjoining counties in Illinois, who may desire to become members. The society meets quarterly, on the first Tuesday in June, September, December and March.

At its first meeting the society requested Dr. A. Patton to read a paper, which he agreed to do at the evening session.

At seven o'clock the Society met and listened to a very able and interesting paper from Dr. Patton on the "Early History of Medicine and Physicians of Vincennes," in which the essayist contrasted ancient and modern medicine and its application in the healing art. The thanks of the Society having been tendered the Doctor, and discussions having been declared in order, Drs. Beard, W. C. Smydth, Freeland, Dukate, Hungate and Patton participated. The treatment of pneumonia with carbonate of ammonia being the chief point of interest, Dr. Dukate was requested to read at the next meeting, in March. Dr. John B. D. Dukate was elected a member.

Drs. S. W. Peck, W. C. Smydth and W. B. Harris was appointed a Board of Censors.

At the regular quarterly meeting of this Society on first Tuesday of March, the following physicians were present: Dr. J. Hays, Bridgeport, Ill; B. R. Helms, Carlisle, Ind.; J. S. Dukate, Wheatland, Ind.; J. T. Freeland, Freelandville, Ind.; B. F. Keith, Edwardsport,

Ind.; Drs. J. W. Pugh, A. P. Haughton and J. W. Merritt, new members, Oaktown, Ind.

Bruceville, Ind., Drs. M. Witherspoon and O'Connell Fairhurst, new members.

Washington, Ind., Drs. G. G. Barton, S. W. Peck, Wells and Zaring, new.

The Vincennes doctors were present with two or three exceptions, who were too busy.

The following gentlemen were elected members: Dr. W. M. Garrard, Lawrenceville, Ill.; Dr. W. Patton, Patton Station, Ill.; Dr. Scudder, Washington, Ind.; R. G. Moore, Vincennes.

Dr. Hays read an able paper on Hypertrophy of the heart, which was well received by the Society.

Dr. Dukate read a paper on Pneumonia, which excited a lively discussion, in which almost every physician present took an active part. Just at this time the subject of pneumonia is attracting a large share of attention from physicians in all sections of the country, and well it may as it is more generally prevalent this season than usual, and in some localities has been attended with great fatality. Statistics show that eight per cent. of all the deaths in European cities are caused by pneumonia, and in the large cities of our own country, it causes more deaths than any other disease. This is the case in the cities of New York and Philadelphia where there is no malarial poison, as here, and where it is supposed there is a concentration of medical skill. Evidently from the reports of the physicians as to results of treatment, the disease is either of a milder type here than in other localities, or our methods of treatment are far better than even in New York and other Eastern cities.

Delegates were appointed to represent the Society in the State and National Medical Associations. Essayists for next meeting, Drs. H. M. M. Smith, W. C. Smydth,

M. Witherspoon, W. M. Garrard, O. Fairhurst, P. L. Brouillette and J. W. Merritt.

The Society adjourned to meet in regular annual meeting at Vincennes, on the first Tuesday of June, at ten o'clock A. M., when there will be several papers read, and a popular address delivered on a medical subject at night, by a distinguished physician, to which the public will be invited. Election of officers will take place at that meeting.

THE Commencement Exercises of the Graduating Class of the College of Physicians and Surgeons, took place Tuesday evening March 2d, in the Baptist Church. The order of exercises being as follows: Address by Ezra Reed, M. D., President of Board of Trustees; Conferring Degrees; Conferring Prizes; Valedictory, Silas Black; Address to class, Prof. T. Parvin.

The exercises were interspersed with music from the church choir and organ. Dr. Reed's address was, without question, a fine production, replete with classic lore and comprehensive in its plan. The readers of the Journal will be favored with at least copious extracts from it at an early date. The valedictory by some means, we presume from lack of time was omitted, but will be published.

At the close of the President's address, a quartette consisting of Mr. W. C. Smock, Miss Gracie Danforth, Prof. Black and Charlie Black, rendered with excellent success and effect, the song commencing:

"Tell me, ye winged winds," etc.

The degree of M. D. was then conferred by President Reed upon the following gentlemen: Silas Black, Indiana; Thomas A. Mason, Indiana; John L. Brown, Indiana; James M. Brydon, Missouri; Thomas G. Blacklege, Indiana; Dayton R. Black, Indiana; John T. Downey, Indiana; J. G. Stuart, Indiana; L. A. Crain, Indiana; A. H. Hedderly, Minnesota; Hiram Duncan,

Indiana; John F. McKinstry, Indiana; Edward T. Francis, Indiana; Abraham Ennis, Indiana. The following are the names of those who practiced medicine before entering the college, all belonging to this State who received ad eundem degrees: John L. Roe, M. D.; A. H. Shaffer, M. D.; Irvin J. Becknell, M. D.; Wm. B. McDonald, M. D.; J. N. Smith, M. D.; T. A. Lemon, M. D.; G. W. Bence, M. D.; T. J. Smith, M. D.; Geo. W. Burton, M. D.; J. Bernny Pettijohn, M. D.; Jerre Reagan, M. D. and Henry G. Todd, M. D.

Dr. Parvin, on behalf of the faculty, then addressed the graduating class with a paper remarkable for its research in medical lore, its fine and forcible language and its beautiful sentiment. A number of prizes were distributed among the members of the class, in accordance with their rank in the various branches of the profession. Some of these were very costly, and, of course, valuable, coming as they did from the faculty as testimonials of excellence and good standing. In addition to the prizes, a number of medals were awarded.

Another quartette was rendered, and the audience dismissed by the benediction of Rev. Dr. Day.

RESOLUTIONS.

The graduating class met in the afternoon for organization of an alumni association and election of officers. The election resulted as follows: President, L. A. Crim, M. D.; Vice-President, J. T. Downey, M. D.; Secretary and Treasurer, Silas Black, M. D.

Dr. Black was selected to deliver an address at the next meeting of the Society.

The following resolutions were adopted, after which they adjourned:

Resolved, That we extend to the faculty of the College of Physicians our heartfelt thanks for the interest manifested in us as students, and for the ability, energy and perseverance which they have devoted to the promotion of our welfare.

Resolved, That we deem the qualifications of the various professors and lecturers as unexceptionable, and we bespeak for the college a most brilliant future.

Resolved, That a copy of these resolutions be furnished the Indianapolis papers, *The Indiana Medical Journal* and *The American Practitioner*, for publication.

MESSRS J. P. PUTNAM & SON announces a series of clinical lectures, suggested as they state by Valkmann collection of clinical lectures. Those selected for publication will be medical instructions in Colleges and Hospitals throughout the Union, printed in pamphlet form of twenty or thirty pages. No subscription for the first year, but sold separately at 30 to 50 cents per lecture. Dr. E. C. Sequin to have the Editorial control.—Prof. Sayers has already contributed one upon diseases of the hip joint. Prof. Flint, A. L. Loomis, A. Jacobi, T. G. Thomas, W. H. Thomas, H. B. Sands and W. H. Draper, all of New York, are named as early contributors. This no doubt will be a valuable addition to Medical Literature.

It does seem that when we have something of value some one will seek to appropriate it without credit given, but if it allowed the slightest criticism, we receive all the credit deserved. Such is human nature, but then we have only to mention the omission in the first case and *amend honorable* will be made. The occasion of these remarks is that we notice an article on Scopemania, by Dr. Brewster, St. Paul, Minnesota, written for and appearing in this Journal, being appropriated by others, among them the Cincinnati Clinic, without the slightest effort to credit its source. We don't care *much*, but as we have to do the same ourselves should prefer to have corrections made.

THIS Journal will still continue during the coming year, to be the organ of the profession and not of any party, or select corps. It has never yet *as a Journal*

been intentionally partial to any individual. To the friends of the *Journal* we would say that we expect their hearty co-operation in sustaining the enterprise. We look not back—it is for the profession to say whether failure shall be the result or success. It is a lamentable fact, that within the past five years a large number of *Journals* have been forced to suspend, from want of patronage, and these were not the worst, but among the best *Journals* we had. It speaks badly for the profession, so numerous, that more good *Journals* should be supported than all of every class now in existence. We are pleased with one thing in relation to our own, that the physicians throughout the State, supply sufficient original matter, and even if sometimes it should not be of the best, it fulfills one of the first and greatest aims of Medical Journalism, the cultivation of the talents of *observation*, and arrangement and also the faculty of relating that which has been observed.

WE call particular attention to the card of Billings, Clapp, & Co., in this Number, touching the question as to whether there is quinine in Cinch-Quinine, a preparation of these gentlemen. The report from chemists seems to be conclusive. We know that whether there be quinine or not contained therein, that it is a very good and certainly efficient article in many cases, acting well where other preparations fail. We speak from experience.

IN the last number of the *Journal* several errors occurred in the article on "Correlation and Conservation of Forces," by Dr. G. N. Duzan, of Zionsville, owing to the revised proof in that gentleman's hands not being returned until the *Journal* was in press.

THE next meeting of the American Medical Association will be at Louisville, Ky., the first Tuesday in May next. The Indiana State Medical Society will meet at Indianapolis the third Tuesday in May.

THE Indiana Medical College held its graduating exercises Friday evening the 26th of February. The exercises were interspersed with music, with a song by W. M. Bullard. Prof. D. Clark, M. D., delivered the address, John M. Kane, M. D., the Valedictory to class. Degrees were conferred by Judge B. K. Elliot upon forty five graduates.

A CARD.

We desire to call attention of the faculty to the following analysis of Cincho-Quinine from some of the most eminent chemists:

BILLINGS, CLAPP & Co., Boston.

Chemical Laboratory of the University of Pennsylvania.

West Philadelphia, January 29, 1875.

MESSRS. BILLINGS, CLAPP & Co.—GENTLEMEN.—I have received by express a package marked “Sealed by S. P. Sharples, January 22, 1875,” and containing a bottle of Cincho-Quinine with the label of James R. Nichols, & Co., Chemists, Boston, which I have tested, and have found it to contain *quinine*, *quinidine*, *cinchoine*, and *cinchonidine*. Yours respectfully, F. A. GENTH,

Professor of Chemistry and Mineralogy.

Laboratory of the University of Chicago.

Chicago, February 1, 1875.

I hereby certify that I have made a chemical examination of the contents of a bottle of Cincho-Quinine, and by direction I made a qualitative examination for *quinine*, *quinidine*, and *cinchoine*, and hereby certify that I found these alkaloids in Cincho-Quinine.

C. GILBERT WHEELER, Prof. of Chemistry.

Miscellaneous.

MICHIGAN STATE BOARD OF HEALTH.

The State Board of Health held its quarterly meeting in Detroit, on Tuesday. There were in attendance President H. O. Hitchcock of Kalamazoo, Prof. R. C. Kedzie of the Agricultural College, Rev. Charles H. Brigham of Ann Arbor, and Secretary H. B. Baker of Lansing.

Prof. Kedzie made a verbal report in regard to the examination of various public buildings which he had made as a member of this Board, at the request of the Board of Penal, Pauper, and Reformatory Commissioners. At the new State Public School building in Coldwater he found no ventilation in the dormitories. The air was very foul, containing 14 to 16 parts of carbonic acid in 10,000 parts of air. The superintendents' and teachers' room are so large that the want of ventilation is not so much felt as in the dormitories. The under-floor space had no ventilation, and the opening for that purpose was closed. The timbers underneath were covered with mold. During the year several deaths have occurred from diphtheria. The water supply comes in part from a well in clay soil, about 100 feet from the privy vault. But there is another well in loose gravelly soil, about 15 rods from a large cess-pool, in which the drainage from the wash-room and one privy is carried to the amount of 80 or 90 barrels per day. The hygienic conditions on the whole are not good.

Prof. Kedzie made an inspection of the State Prison, and found the cells without any ventilation excepting through the doors. He examined the air in the cell in the morning, before the men had left them, and found it exceeding bad,—contaminated by excrement kept in wooden buckets during the night. The air in some of these cells contained 32 parts of carbonic acid in 10,000 parts of air. There was no ventilation in the shafts,

or at least no central heat in the shafts to cause a motion of the air. The air was especially bad in the blacksmith shop, the trip-hammer shop, and the tobacco shop. It was also foul in the hospital.

The ventilation in the House of Correction at Detroit is not good. In the room for women the ventilators are at the bottom, and pass up to a tight garret, from which there is said to be an opening in the chimney; but he could detect no motion of air in the ventilators. They have wooden buckets at the House of Correction, like those at the State Prison, to hold excrement; and the professor suggested that metallic buckets be substituted, and cleansed by chemicals.

He found exceedingly bad air in the school-rooms and dormitories. On each side of the building the two main sewers run, and the well from which the water supply is taken may be perhaps contaminated thereby.

The ventilation at the Reform School in the old building is passable, but in the new part and in the hospital it is bad.

The President thought this report of Prof. Kedzie should be printed. Dr. Brigham said he considered it one of the most important topics which had come before the board, and on his motion, Prof. Kedzie was asked to prepare a paper upon this subject for publication.

Prof. Kedzie, as chairman of the committee on Legislation, reported the form of a memorial on several topics connected with public health: 1, an amendment to the law regulating the inspection of illuminating oils; 2, the protection of life on railroads by means of proper signals; 3, a compilation of the laws relating to life and health in this State, to be printed in pamphlet form; 4, to prevent the cutting of holes in the ice and leaving them without any signal to show their location. This report was adopted.

The Secretary read a communication from Dr. J. H. Jerome of Saginaw City, relative to the water supply

there. The facts set forth by Dr. Jerome show that the principal sewers of the city are discharged into the river above the water-works, and the filth and washings of a large section must find a receptacle in the reservoir from which the water supply is drawn.

The Board of Health gave Dr. Jerome a vote of thanks, and expressed a hope that they might make further use of his valuable paper.

Rev. Dr. Brigham read an interesting essay, giving a full account of the various ways of disposing of the dead by the nations of the world, both ancient and modern.

Adjourned for three months.

DISEASE OF THE HEART A CAUSE OF ABORTION AND PREMATURE CONFINEMENT.—Under this head the *Lancet*, November 7th, remarks as follows :

“ The connection which may exist between disease of the heart and pregnancy has within the last few years attracted the attention of some French medical men. In 1872 Dr. Michel Peter, in a clinical lecture published in *L'Union Medicale*, showed that very grave accidents might supervene in pregnant women affected with mitral insufficiency. More recently (in October, 1873,) M. Budin, house-surgeon to one of the Paris hospitals, published a case in the *Progres Medical* which received much attention. It was that of a woman, aged forty years, affected with mitral insufficiency and dry pericarditis in the situation of the base, and attended by the phenomena of symptomatic angina pectoris. She had had seventeen child-births. In the first fourteen pregnancies the woman either reached the ninth month safely or miscarried in the course of the second month. Until she conceived for the fifteenth time she had never suffered from illness, never had an attack of articular rheumatism, never felt palpitation. Toward the sixth week of this fifteenth pregnancy she was affected with violent

fits of suffocation, which were so very intense that she thought every time she was going to die. Each of the fits was ushered in by cardiac palpitation. These attacks of dyspnœa increased in intensity until miscarriage took place, and then they ceased immediately. For the sixteenth time she became pregnant. Again the palpitation and dyspnœa made their appearance, and were even more frequent than before. The seventeenth pregnancy was marked by the same phenomena, and in both cases they disappeared only on occurrence of miscarriage. This event took place respectively at five months and a half and six months, the mother giving birth both times to a dead fetus. The last miscarriage took place in March, 1869. The beatings of the heart, which had been very violent during pregnancy, diminished considerably after miscarriage, though they did not cease entirely, when the husband was taken ill, and died in the month of April following. The heart symptoms then became more intense, and the woman entered the wards of *La Pétits*, where she stayed four months.

In March, 1874, *La France Médicale* published the case of a woman who enjoyed good health until the age of thirty, and had three times been safely confined at term. She then began to suffer from palpitation, dyspnœa, etc., became twice pregnant, and miscarried both times at the third month of pregnancy. The cause of the heart-disease was stricture of the aorta. Still more recently a similar case was communicated to the *Société Anatomique* of Paris, and in the discussion which followed Dr. Pinard related that during his house-surgeonship at the lying-in hospital he had observed two cases in which no cause had been discovered for the occurrence of premature child-birth but the existence of heart-disease.

To the numerous causes of abortion and premature confinement indicated by classical writers it will be very likely necessary to add henceforth the one mentioned by

M. Budin; namely, disease of the heart. Moreover, the expulsion of the fetus is but the consequence and, it may be said, occasionally the favorable termination of the grave accidents on which Dr. Peter has insisted in his lectures.

PASSAGE OF A SCISSORS THROUGH THE ABDOMINAL WALLS AFTER BEING SWALLOWED.—Dr. H. B. Sands presented a scissors five inches long, which had been swallowed by a patient in a lunatic asylum. The history of the case was given him by Dr. Edward Farrel, of Halifax, N. S., and was substantially as follows:

The patient was afflicted with suicidal mania, and stated that she had swallowed a scissors; but, inasmuch as she was addicted to lying, she was not believed. Some time after this she complained of pain in the right side above the umbilicus, and to the right of the median line. A tumor appeared which was poulticed; an ulcer formed, and it was then found that the points of the scissors were protruding. Sponge-tents were introduced to enlarge the opening, but, from threatened peritonitis, their use had to be abandoned. From this opening intestinal and biliary matter came away, which showed a communication with the pyloric extremity of the stomach, if not the small intestine. It was found that the scissors, as presenting, could not be removed; but, by unfastening the rivet, one blade, then the other, was successfully removed. The blades were five inches long and three-fourths of an inch wide.

Twelve hours after the exit of the last blade, there was no trace of biliary or intestinal matters; and in two days the wound had completely healed up, and very shortly after she was perfectly well.

The patient also stated that she had swallowed the plug of a bath-tub some time previously, and found it to pass by the rectum without any difficulty.—*Proceedings of N. Y. Pathological Society.*—*N. Y. Medical Journal.*

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